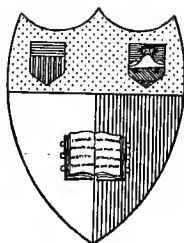


SCHOOL EFFICIENCY
A CONSTRUCTIVE STUDY
PAUL H. HANUS

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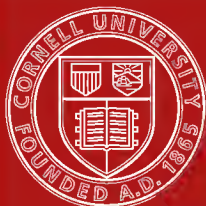
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THE School Efficiency Series comprises about ten volumes by as many educational experts on Elementary School and Kindergarten, High School, and Vocational Instruction, Courses of Study, Organization, Management and Supervision. The series consists of monographs — with additions plainly indicated in each volume — constituting the report of Professor Hanus and his associates on the schools of New York City, but the controlling ideas are applicable as well in one public school system as in another.

Among the authors contributing to these volumes are Professor Paul H. Hanus, Professor of Education, Harvard University, who is also general editor of the series; Dr. Frank P. Bachman, formerly Assistant Superintendent of Schools, Cleveland; Dr. Edward C. Elliott, Director of the School of Education, University of Wisconsin; Dr. Herman Schneider, Dean of the College of Engineering, University of Cincinnati; Mr. Frank W. Ballou, Joseph Lee Fellow for Research in Education, Harvard University (formerly Assistant Professor of Education, University of Cincinnati); Dr. Calvin O. Davis, Assistant Professor of Education, University of Michigan; Mr. Frank V. Thompson, Assistant Superintendent of Schools, Boston; Dr. Henry H. Goddard, Director Department of Psychological Research, New Jersey Training School for Feeble-Minded Boys and Girls; Mr. Stuart A. Courtis, Head of Department of Science and Mathematics, Detroit Home and Day School (Liggett School), Detroit; Dr. Frank M. McMurtry, Professor of Elementary Education, Teachers College, Columbia University; Dr. Ernest C. Moore, Professor of Education, Harvard University (formerly of Yale University).

SCHOOL EFFICIENCY SERIES

School Efficiency

A Constructive Study
Applied to New York City

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Edited by PAUL H. HANUS

School Efficiency

A Constructive Study Applied to New York City

Being a Summary and Interpretation of
the Report on the Educational Aspects
of the School Inquiry

By PAUL H. HANUS

PROFESSOR OF EDUCATION, HARVARD UNIVERSITY



YONKERS-ON-HUDSON, NEW YORK
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PREFACE

DURING the year 1911-1912 I was placed in charge of the educational aspects of the school inquiry undertaken by the Committee on School Inquiry of the Board of Estimate and Apportionment of the City of New York. The inquiry covered thirteen months in all — from June 1, 1911, to July 1, 1912.

My report in its final form consisted of two parts: Part I comprising the Letter of Transmittal, the necessary Introduction to the entire report, and "The Report as a Whole" — the unification and interpretation of all the work done on the educational aspects of the School Inquiry, including summaries of our principal findings and recommendations; and Part II, consisting of the several reports of my associates on their separate fields of inquiry. Part I is reproduced in the present volume without change in substance and with only one considerable (but unimportant) change in form, namely, the transference of the statistical portion of the Introduction to an appendix.

Most of the first drafts of the reports of my associates could not be ready for the printer before the last week in June, 1912; and as our work in New York was to cease on July 1st, it was impossible for me to prepare "The Report as a Whole" before that date. It was manifestly desirable, however, to have our principal findings and recommendations easily accessible and in as brief a compass as possible. Accordingly, at my suggestion, my associates and I prepared digests of their reports at the time when their reports first went to the printer. These digests together constituted what we called a "Joint Report," and formed a considerable portion of Part I of my report as originally submitted to the Committee.

The entire first draft of my report was in the printer's hands by July 1, 1912. Unnecessary and long delays, for which the Committee were responsible, occurred in sending me first and second galley proof and page proof. I wished to finish "The Report as a Whole" and substitute it for the "Joint Report"—the latter being an expedient that had been adopted at a time when no other course seemed possible. But I could not finish "The Report as a Whole" until I had the page proof of the reports of my associates; and it was December before this page proof was in my hands. During that month I held the page proof in order to complete "The Report as a Whole." When it was finished the Committee assented to my proposal to substitute it for the "Joint Report."

Because Part I of my report presented a complete survey of our work, together with summaries of our principal findings and recommendations, I naturally suggested and finally urged that the Committee publish Part I in advance of Part II; but the Committee chose to disregard my suggestion and later my urgent request. Dismembering "The Report as a Whole," they published in a small pamphlet the first pages and the concluding paragraph of that document; and then printed successively each of the reports (with one exception, Professor Moore's report which the Committee had "rejected") constituting Part II, together with an excerpt from "The Report as a Whole" bearing on each report. They thus dismembered the entire report; and it was not until long afterward that the whole of Part I was published as a single document (under date of July 1, 1913; received by me more than a month later).

For most of the details summarized in this volume I am indebted to the eleven men who were my associates in the inquiry. I have even used their own phrases here and there. Nevertheless I alone am responsible for the form into which I have cast the material drawn from their reports. I am also completely responsible for the substance as well as for the form of some of the recommenda-

tions, particularly for most of the recommendations that problems be referred to the Bureau of Investigation and Appraisal for further study; the recommendation that such a Bureau be established originated however with Professor Elliott. (See his volume — “City School Supervision as Exemplified in New York City,” in this series.)

Each of the volumes of the School Efficiency Series is a reproduction of one or more of the monographs (reports) of my associates. The changes (if any) made in the monographs for publication in the School Efficiency Series are plainly stated in the Preface to each volume.¹

PAUL H. HANUS.

HARVARD UNIVERSITY

¹ It seems to me worth while to state here, once for all, the facts concerning the widely advertised pretensions of a person who wanted to share in the conduct and results of the inquiry. For this purpose, I cite the following paragraph from the Introduction to my report (and hence also to this volume, see p. xxvi):

“During the progress of the inquiry we have repeatedly received oral and written suggestions and memoranda concerning the inquiry from one of the directors of the Bureau of Municipal Research. [This Bureau is not a part of the City Government. It is an independent organization supported by private funds.] At first these suggestions and memoranda were welcomed and received with interest. But it gradually became apparent that these communications, in large part, represented a spirit and methods widely divergent from our own; hence they were of diminishing interest to us; and since November, 1911, we have pursued our work without reference to them.”

The spirit of these communications and the methods they represented were of the kind afterward embodied in the two hundred and forty-one questions on Professor Ernest C. Moore's report, which are printed in the appendix to Professor Moore's volume in this series (“How New York City Administers its Schools”) so as to give any one who may be interested in such questions access to them.

Later this same director of the Bureau of Municipal Research secured — without my knowledge until long afterward — the unrevised first galley proof of the report of my associates and myself as it came from the printer, and at once made elaborate preparations to “edit” it! Of course this attempt of his to meddle in our affairs had to be defeated — and it was.

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Introduction

INTRODUCTION

MY work on the educational aspects of the School Inquiry in New York began on June 1, 1911. But before that time steps had been taken to secure the staff of specialists needed for the inquiry. Nominations of specialists to participate in the inquiry were made, at different times, by me to President Mitchel, and were approved by him; and, after December 27, 1911, to President Miller, and were approved by him.¹ These specialists were assigned to their several fields of inquiry as soon as they were appointed. Each of them was also informed that, in addition to his being held responsible for results in his particular field, his work and report would, as far as practicable, be subjected to the criticism of all.

At the time when correspondence with the specialists we needed began, it was found that most of them could not be secured for continuous service because they were already committed to their regular work at home for the following year, and had also made the usual additional engagements that such men in the educational field of service habitually accept.² As the inquiry must go on, it was clear that we must content ourselves with as much of their time as the men could give, with the proviso, however, that each of them should give at least six weeks of service in all.

¹ President Miller had become Acting Chairman of the Committee on School Inquiry on account of President Mitchel's illness. President Mitchel resumed the Chairmanship in April, 1912.

² Only two members of the staff — Professor Hanus and Dr. Bachman — were on the ground continuously during the entire period of the inquiry. Professor Ballou was in continuous service commencing August 12, 1911.

President Mitchel had informed us that there was uncertainty about the continuance of the inquiry beyond December 31, 1911, although it was expected that the inquiry would be continued. Hence it was necessary to secure the specialists on the staff and plan their work with that in mind. It was evident then (and it has been ever since) that, because of the magnitude and complexity of the New York City school system and the time limits to which the inquiry was restricted, even if it should continue for a year, to do any satisfactory work it would be necessary to limit the general scope of the inquiry, and also to limit the work to be done within each field. And this was stated to President Mitchel.

It was evident also that a detailed plan for the inquiry could be made only after a general survey of the field had been undertaken, and after the conditions under which the work must be carried on were known. A provisional plan was, however, submitted to President Mitchel on June 14, 1911, and met with his approval. This plan was revised and submitted to him again on July 10, 1911, and again met his approval. The final form assumed by the inquiry is substantially the plan of July 10.¹

Meanwhile, President Mitchel had told us that he would suggest certain investigations which he hoped we would be able to undertake without disadvantage to the broader aspects of the inquiry as planned; and the work we have undertaken in response to these suggestions was accordingly added to the plan of July 10.

The work in one field of the inquiry as originally planned was suspended for a time (September, 1911, to January, 1912) owing to Professor Elliott's illness; and one important field had to be abandoned altogether because the specialist who was invited to report on the City Training Schools for Teachers and had signified his intention of accepting our invitation, found it impossible at a late date,

¹ See pages XXIV, XXV.

to undertake this work. Efforts to find a suitable successor to him were continued until March, 1912, but without success. Our inquiry into the training schools and after-training of teachers therefore had to be abandoned.

As already stated, the inquiry began on June 1, 1911; it covers three fairly distinct periods of time.

First. From June 1 until about the middle of August. During this period a general survey of the school system was made, and the plan of the inquiry which had been approved was developed; work on that plan and several inquiries suggested by President Mitchel were begun.

Second. From about the middle of August till the second week of November, during which work on the budget of the Board of Education for 1912 occupied nearly the whole of our time; together with the period of uncertainty about the continuance of the inquiry, extending to the last week in December, 1911. By November the question whether the inquiry should be continued beyond December had become important. Although the Committee, under date of November 29, 1911, requested me to continue the inquiry as planned until July 1, 1912, the possibility of securing the necessary funds was not settled until December 20, when we were directed to go on with the work. (The letter informing us that the funds were secured did not reach us, however, until December 27.) The staff continued its work during this period of uncertainty, but it was manifestly impossible to proceed with any extension of the scope of the inquiry beyond that already assumed prior to November, 1911. During the period of uncertainty, also, our efforts were naturally directed chiefly to bringing to as definite a conclusion as possible the partial results we had been able to achieve. Toward the end of this period, also, President Mitchel fell ill.

Third. Under date of December 20, 1911, we were directed to proceed, and were informed that, in consequence of President Mitchel's illness, President Miller had become Acting Chairman of the Committee on School In-

quiry; and the third period of the inquiry extends from that date to the present time, May, 1912. During this third period, the work as planned during the first period, modified as circumstances required, together with such work on the questions suggested by President Mitchel (referred to above) as we have been able to undertake, has proceeded uninterruptedly; during this period of concentration on the inquiry as planned much the greater part of the work with which this report deals was done.

INQUIRY INTO PROMOTION, NON-PROMOTION, AND PART TIME

Our first efforts were directed to an inquiry into certain factors affecting promotions and non-promotions in the elementary schools (including "part time"), when the inquiry began on June 1, in accordance with instructions from President Mitchel, transmitted through Mr. Burdette G. Lewis. A detailed description of this inquiry itself is given in Part II of this report.¹ Its most important results are given in the present volume pages 28-34.

INQUIRIES SUGGESTED IN PRESIDENT MITCHEL'S LETTER OF JUNE 14, 1911

On June 14, 1911, a letter was received from President Mitchel in which he suggested investigations he hoped we could make in time for the budget hearings on the Board of Education's estimate for 1912. This letter also asked "whether or not the furnishing of this information will

¹ Dr. Bachman's report on Promotion, Non-promotion and Part Time.

As stated in the preface, it was my plan to have our report to the Committee consist of two parts: Part I to comprise the subject-matter of the present volume; Part II to consist of the reports of my associates. Hence the reference to "Part II of this report."

defeat plans which you have in mind for the broader inquiry."

President Mitchel's letter asked for an inquiry into the following topics:

(a) Additional teachers needed to take care of the annual increase of pupils.

(b) Additional teachers needed to do away with part-time classes, and concerning the alleged evil of part-time classes.

(c) The advantages of the consolidation of classes.

(d) The possible advantages of increasing the number of intermediate schools, and the attitude of the Board of Education toward such increase.

(e) The method adopted by the Board in determining the number of special teachers required.

(f) The results of departures from the estimates in the recommended budget of last year.

(g) The influence of visiting teachers on decreasing non-promotion.

(h) The basis adopted by the Board of Education in determining the largest practical size of high-school classes.

(i) What trust funds could be used to offset the estimated budget for 1911-1912.

(k) Whether money enough is spent on attendance officers' work, and the difference of method in the work of attendance officers in the different districts.

(l) The facility with which teachers absent themselves from school and entail a heavy bill for substitutes.

The wide range of questions in this letter necessitated careful study — especially the possibility of answering the questions in view of the plan of the inquiry already approved, the time for the inquiry, and our financial resources.

It was soon evident that to answer the first question alone would require a larger staff and cost a larger sum of money than was at our disposal.¹

¹ We were informed by an official of the Finance Department that his department had under consideration the cost of tabulating

Similarly, to determine the number of special teachers needed on the basis of the actual number of teachers in the service needing the assistance of special teachers and the number of new teachers actually needing such assistance would require a large amount of tabulation of data and a correspondingly large clerical force.

Further study of President Mitchel's questions convinced us that it would be impossible to answer them by the time of the budget hearings on the Board of Education's estimates for 1912; that to answer these questions ourselves by December would probably also be impossible even if we devoted our entire time to them. We accordingly suggested to President Mitchel that he send his questions formulated somewhat differently to President Winthrop of the Board of Education; and we stated our belief that questions that could not be answered in this way could not be answered by direct investigation by our staff.

President Mitchel doubtless approved these suggestions; for he sent a letter dated July 11, 1911, to President Winthrop covering the questions referred to. This letter asked for a reply by September 1, 1911. On that date Mr. Lewis brought President Winthrop's reply to us; but without instructions as to further procedure.

President Winthrop's letter did not give definite answers to several questions, and we accordingly prepared a series of supplementary questions on President Winthrop's answers for such use as the Committee might wish to make of them. No direct use was made of these supplementary questions by the Committee, so far as we know; but some of the questions subsequently formed part of further investigations already under way or planned for by us.

Although we could not attempt to answer the questions in President Mitchel's letter, we have worked out the

the data required for such a purpose as was indicated in Question (a), and that the estimated cost would be ten thousand dollars (\$10,000).

method whereby the answers to several of them could be obtained — those questions, namely, relating to

Estimating the need of elementary school teachers.

Intermediate schools.

Estimating the need of high-school teachers (“The largest practical size of high-school classes”).

The compulsory-attendance service.

— and the most important results of our investigation of these questions will be found in the present volume; the detailed reports of the investigation will be found in Part II of this report.¹

WORK ON THE BUDGET

In August we were told that President Mitchel, who was in Europe, would expect us to examine the budget requests of the Board of Education with a view to supplying the information required to test the validity of the Board's requests at the budget hearings in October.

A preliminary study of the budget of the previous year was made pending the receipt of the budget for 1912. The 1912 budget did not reach our office until about the middle of September. It was manifestly impossible to attempt an adequate analysis of the entire budget of the Board of Education, or even to collect the necessary information on which such an analysis must be based. We² decided, therefore, to restrict the scope of our examination of the budget to certain items in the General Fund, and further to limit our study of those items to the increments asked for. We were aware that, even with these restrictions, complete data for our examination of the budget would not be available. We proceeded, however, as carefully as we could. We made a provisional report recommending

¹ See last paragraph of the note on page XVIII.

² Professor Hanus and Dr. Bachman were the only members of the staff available for this work; although Dr. Burks gave some assistance apart from his report, mentioned below.

certain reductions in the estimates of the Board of Education and certain other provisional reports; but because of our inadequate data we proceeded no further. The reductions recommended are summarized in the following table:

ELEMENTARY SCHOOLS: NEW TEACHERS

Term	Number Re- quested	Number Re- com- mended	Amount Requested	Amount Recommended	Reduction Recommended
Fall Term, 1911 (Schedules Nos. 6 & 9)	568	224	\$425,250.00	\$154,860.75	\$270,389.25
Spring Term, 1912 (Schedule No. 7) . .	278	11	169,536.16	6,523.33	163,012.83
Fall Term, 1912 (Schedule No. 8) . .	414	276	76,910.77	45,719.45	31,191.32
Total	1,260	510	\$671,696.93	\$207,103.53	\$464,593.40

ATTENDANCE OFFICERS: NEW

Schedule No. 1	20	0	\$18,000.00	000	\$18,000.00
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VISITING TEACHERS: NEW

Schedule No. 1	25	0	\$25,000.00	000	\$25,000.00
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EVENING SCHOOLS: EXTENDING THE TERM

Schedule No. 10		...	\$14,564.00	000	\$14,564.00
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Total reductions recommended \$522,157.40

The other reports on the budget for 1912 were: Estimated Need of Elementary School Principals; Analysis and Criticism of Method Used to Estimate the Need of Elementary School Teachers for 1912; Estimated Need of Elementary School Teachers for 1912; Estimated Need of Kindergarten Teachers for 1912; and Estimated Need of Manual Training and Cooking Equipment for 1912; and a report by Dr. Burks on the Compulsory-Attendance service. These reports were filed with the Committee on School Inquiry.

In addition to our examination of the budget we were asked to prepare for President Mitchel's use a series of questions on each item of the budget intended to bring out at the hearings the information used by the Board of Education as the basis of its estimates. These questions were prepared and are filed with the Committee on School Inquiry.

In order to give the Board of Education and its officers an opportunity to prepare themselves to answer the questions likely to be asked at the budget hearings, we formulated a letter to be sent by President Mitchel to President Winthrop of the Board of Education, notifying him of the kind of information the Board of Estimate would require at the hearings; and this letter was sent by President Mitchel on October 2, 1911.¹

Meanwhile, in July, letters asking for suggestions and comments on aspects of the school system most requiring attention had been sent to the City Superintendent of Schools, each of the eight Associate Superintendents, each of the twenty high-school principals, each of the four members of the Board of Examiners, and to a few of the school commissioners (members of the Board of Education), in order to ascertain the range and kind of thought given to the problems of the school system by those intrusted with their solution. The replies to these letters as they were received were analyzed, and a card catalog of their contents made by Mr. Abbott.²

Many of these replies contained fruitful suggestions; and some of them which lay directly in the fields of inquiry assigned to the coöperating specialists have been duly considered.

Meanwhile, also, a study of the course of study for the elementary schools and of the high schools was begun and was carried forward with interruptions until consideration

¹ Filed with the Committee on School Inquiry.

² Mr. Allan Abbott, Head of the Department of English in the Horace Mann School, who served as Secretary to the staff from June 19 to August 12.

of the budget, just described, commenced. Constant delay was experienced in getting material that was needed for our study of both elementary and high-school courses of study owing largely to the absence of teachers, principals, and superintendents from their schools in vacation time. Gradually, however, information was collected from a dozen cities, and this information has been used in our study of the courses of study described in this report.

Meanwhile, also, in September, letters had been sent to each member of the Board of Superintendents and Board of Examiners, and to each District Superintendent, each high-school principal, and to eighty-three elementary-school principals, asking them certain questions covering the official and voluntary reports on their work made to the Board of Superintendents, or to the Board of Education, and intended especially to ascertain how much independence and initiative and how much coöperative activity there is in the supervisory and executive staff of the school system. The replies to these letters have been studied, and appropriate use has been made of them by the specialists whose fields of inquiry they cover.

The following table gives the list of specialists engaged on the inquiry, the field of work assigned to each, together with a general statement concerning the length of his service and whether such service was continuous or otherwise. This table conforms closely to the plan of the inquiry approved on July 10, 1911:

PAUL H. HANUS, Professor of Education, Harvard University.

In charge of Educational Aspects of School Inquiry. Continuous Service.

FRANK P. BACHMAN, Assistant Superintendent of Schools, Cleveland, Ohio.

Statistical studies pertaining to the Needed Number of Elementary School Teachers, Promotions and Part Time, Intermediate Schools. Continuous service commencing June 5, 1911.

EDWARD C. ELLIOTT, Professor of Education, University of Wisconsin.

Organization and methods of the Supervisory Staff, including the Board of Superintendents, District Superintendents; Di-

rectors of Special Branches; Board of Examiners. Service, at intervals; discontinued on account of illness commencing in September; resumed in January, 1912.

FRANK M. McMURRY, Professor of Elementary Education, Teachers' College, Columbia University.

Teachers and teaching in the elementary schools, together with the supervision of their schools by the principals. Also (after December, 1911) elementary school course of study. Service at intervals.

JESSE D. BURKS, Director of the Bureau of Municipal Research, Philadelphia.

Compulsory-attendance service. Service at intervals.

HERMAN SCHNEIDER, Dean of the College of Engineering, University of Cincinnati.

Vocational schools. Service at intervals.

FRANK W. BALLOU, Director of School Affiliation and Assistant Professor of Education, University of Cincinnati.

High school organization and administration. Continuous service commencing August 12, 1911.

ERNEST C. MOORE, Professor of Education, Yale University (now of Harvard University).

Board of Education and Local School Boards. Almost continuous service commencing January 17, 1912.

CALVIN O. DAVIS, Assistant Professor of Education, University of Michigan, and Inspector of High Schools.

High-school courses of study (except commercial courses). Continuous service for about seven weeks from January 2, 1912.

FRANK V. THOMPSON, Assistant Superintendent of Schools, Boston, Massachusetts.

High School of Commerce, Commercial High School, and commercial courses in high schools. Service at intervals commencing January 15, 1912.

HENRY H. GODDARD, Director Department of Psychological Research, New Jersey Training School for Feeble Minded Boys and Girls.

Ungraded classes. Service at intervals.

STUART A. COURTIS, Head of Department of Science and Mathematics, Detroit Home and Day School, Detroit.

The Courtis tests in arithmetic for about 30,000 children in the 4A-8B grades of the elementary schools and in at least one high school. Service at intervals.

The last five specialists named above were assigned to duty as soon as possible after we were directed, under date of December 20, 1911, to proceed with the inquiry. At

that time also Professor Elliott was reassigned to duty, and the field originally assigned to him was divided between him and Professor Moore; and Professor McMurry was asked to undertake a report on the elementary school course of study, as indicated above.

The specialist in charge of the inquiry has devoted a large share of his time, apart from planning and directing the inquiry as a whole, to the plans of the members of the staff¹ and to continuous and detailed supervision of their work and criticism of their reports, as the work and the reports thereon developed. For several of the reports he is equally responsible as to details of subject-matter and form with the specialists who sign them.

Also, in accordance with the original plan of work, most of the reports of the specialists were discussed in staff conferences; and all of them would have been had time and circumstances that we could not control permitted, *i. e.*, had it been possible oftener to get the members of the staff together. As it was, many partial staff conferences were held, conferences of individual members of the staff with each other took place daily, and prolonged conferences of one or more members of the staff with the specialist in charge occurred almost every day.

During the progress of the inquiry we have repeatedly received oral and written suggestions and memoranda concerning the inquiry from one of the directors of the Bureau of Municipal Research in New York. At first these suggestions and memoranda were welcomed and received with interest. But it gradually became apparent that these communications, in large part, represented a spirit and methods widely divergent from our own; hence they were of diminishing interest to us; and since November, 1911, we have pursued our work without reference to them.

¹ "Staff" is used to designate the specialists engaged on the educational aspects of the inquiry.

The aims of the inquiry are constructive throughout. We have aimed to deal judicially with the achievements, merits, and defects of the school system. But since our chief purpose was constructive criticism we have given most attention to such defects as we have been able to point out. It will be apparent, therefore, that we have not dealt with the defects of the school system in order to give prominence to them, but in order to suggest the means of remedying or minimizing them. We have, of course, sought to ascertain the facts, so far as time and opportunity permitted, and to make such recommendations as the facts justified.

Neither the professional reader nor the lay reader needs to be told that there are very few established standards whereby the efficiency of educational activities may be measured, and that accepted methods of studying such activities are, for the most part, yet to be found. The science of education is, as yet, in its beginnings. We have, however, used such standards as are available, and have employed or developed such methods of studying the problems with which we have dealt as commended themselves to our judgment. The methods we have employed are statistical, comparative, and experimental—the last only so far as such methods could be immediately applied by us (*e. g.*, the Courtis Tests in arithmetic and the Binet-Simon Tests for mentally defective children).

At the present time educational opinion rather than organized educational experience is often the only available basis for educational procedure. Consequently some of our recommendations (*e. g.*, those pertaining to courses of study in elementary schools and in high schools, the size of high schools, specialized and general high schools) necessarily rest on such opinion. Such recommendations are regarded by us as a safe basis for experimentation for progressive improvement; but we also urge, once for all, that the fruits of educational experience following the adoption of such recommendations be collected, organized,

and carefully appraised, in order that established educational truths may gradually take the place of mere opinion; *i. e.*, we recommend that statistical and experimental methods of studying educational procedure and results be greatly developed and continually applied within the school system itself to confirm or refute educational opinion within the school system and in the community.

We have endeavored throughout, so far as possible, to enlist the coöperation of the supervisory officers and teachers in getting facts, and to some extent in arriving at the conclusions derived from them, and recommendations based on them. It is a pleasure to state that our endeavors in this direction, especially in getting information, met with a hearty response on the part of the City Superintendent, several of the Associate Superintendents, several members of the Board of Examiners, most of the District Superintendents, and Directors of Special Branches, all of the High-School Principals, several active committees of High-School Teachers, and many Elementary-School Principals whose coöperation we invited. The Board of Education and its Secretary, and the responsible heads of its several bureaus, and nearly all of the Local School Boards have afforded us every facility in getting the facts we sought. We have also had valuable assistance from the Secretary of the Permanent Census Board.

During the progress of the inquiry the question whether it was possible to publish portions of the report in advance of the publication of the final report was considered more than once. We found, however, that such publication was not feasible, because (1) it was manifestly important to minimize the possibility of error in our conclusions by the opportunity to revise them up to the last moment; and, as exigency or opportunity frequently required us to turn from one piece of work, before completing it, to another, final revision of partially completed portions of the report was repeatedly and necessarily deferred; (2) the time

that possible controversies would demand was urgently needed for the inquiry itself; and (3) most of the reports of the contributing specialists were not ready for the printer until the end of May, and some of them were not ready till the last week of June.

The Report as a Whole

SCHOOL EFFICIENCY

THE REPORT AS A WHOLE

CHAPTER I

PLAN, PURPOSE, AND METHOD OF THE REPORT AS A WHOLE

THE city of New York, with its great area, diversified population of about 5,000,000 people, and complex organization, naturally possesses a huge and complicated school system. Confining the enumeration of the educational aspects of the system to those only which have been dealt with or, at least, touched in this report, there were in 1910-11: 497 elementary schools; 3 training schools for teachers;¹ 2 day vocational schools; 3 truant schools; 20 high schools and high school departments; together with 16 evening high schools, 2 evening trade schools, and 101 evening elementary schools. These schools and other schools and activities were under the general control of a Board of Education consisting of 46 members, and were also subject to the general oversight of 46 local school boards. The total teaching and supervising force, exclusive of teachers in evening schools, recreation centers, vacation schools, and playgrounds, numbered 2,253 men and 15,942 women, 18,195 persons in all. The average monthly register in all schools was 677,192 and the average daily attendance was 603,455. Magnitude, variety, and complexity are accordingly salient and significant features of the school system, and had to be reckoned with in any inquiries, however limited, that could be undertaken.

¹ Originally included in the plan of the Inquiry, but found to be impossible, and abandoned with regret.

It was not possible to give any serious study to the problems presented by the Inquiry prior to June 1, 1911, when our work began. As already stated in the Introduction to the report, the Inquiry covers three fairly distinct periods: (1) From June to the middle of August, when we were adjusting ourselves to the local situation; (2) from the middle of August to the middle of November, the budget period; and the further "period of uncertainty about the continuance of the Inquiry" till about the end of December, 1911; and (3) from January 1 till July 1, 1912, when most of the productive work of the Inquiry was done.

Several provisional plans for the Inquiry were drawn up during the early weeks of the first period, but it was not until about July 10 that it was possible to develop the plan which we subsequently followed as closely as time and circumstances permitted. To this plan were added certain inquiries suggested or approved by the Committee,¹ one of which — our work on the budget of 1912 — lay wholly outside our own plan and consumed more than two months' time. Because of our limited staff and the great mass of data required but not available, this budget work ought never to have been undertaken, and was necessarily unsatisfactory to us. It will not be further considered in this account of our work. The other inquiries were related to our own and were made an integral part of them.

The plan adopted and approved by the Committee on July 10, 1912, was based on the following principles:

1. The scope of the Inquiry as a whole, and in its details, must be restricted to what it is reasonable to expect can be accomplished in the time and with the staff at our disposal.²

¹ The Committee on School Inquiry of the Board of Estimate and Apportionment, under whose general direction the inquiry was carried on.

² This principle does not exclude, however, the definition or statement of problems to be solved by further investigation. Such prob-

2. Within the limits thus set we should endeavor to obtain as satisfactory answers as possible to the following questions:

(a) What instruction does the public school system of New York City provide, and is this instruction commensurate with the educational needs of the city in respect to (1) scope; (2) quality; (3) adjustment to individual needs; (4) adjustment to social (including vocational) needs?

(b) (1) Does the technical administration and supervision show professional insight and helpful leadership within and without the school system? (2) Does it actively encourage and promote the professional growth and practical efficiency of the teaching force?

(c) Is the admission of competent and otherwise satisfactory new members of the teaching and supervisory staff properly safeguarded?

(d) Is the general organization and administration of the school system such as to promote the satisfactory discharge of the city's educational responsibilities by the Board of Education and the local school boards?

(e) Further, and in general: (1) Do initiative and coöperation under leadership, or do their opposites — passive conformity to instructions from above on the part of teachers, bureaucratic and chiefly authoritative control by the supervisory staff, and purely authoritative or arbitrary general direction and control by the Board of Education — prevail throughout the school system? (2) Is self-examination habitual throughout the school system, and are the results of educational experience so gathered and used as to become effective guides for future effort? (3) Is there satisfactory provision for disinterested and adequate appraisal of results achieved, including experimental tests, to confirm or refute educational opinion within and without the school system?

lems are, indeed, perennial; and the report states many of them and suggests the procedure for their progressive solution.

As stated in the Introduction to the report, the purpose of the Inquiry was constructive throughout. We have not failed to appreciate the merits of the school system of New York City, and they are many; but since our chief purpose was constructive criticism, we devoted ourselves more particularly to such defects as we were able to point out, and to suggestions and recommendations for removing or minimizing them.

The method of the Inquiry was statistical, inspectorial (personal inspection by members of the staff), comparative (comparisons of New York City's schools and school system with those of other cities), and experimental so far as reliable experimental or scientific methods are available in education and could be employed; and we made much use of conferences with school officials and members of the teaching and supervisory staff.

This method throughout aimed to ascertain the facts we needed for the purpose in hand, and to verify the facts and conclusions based on them so far as our time and opportunity permitted. We were particularly careful not to make statements unsupported by facts where facts were needed; and we consistently objected, in spite of considerable pressure from without during the first months of the Inquiry, to issue statements of findings, because we had not yet done all we could to assure ourselves of their validity. Further, we had no interest in setting forth defects in the school system until we were ready to make the constructive suggestions that we aimed at, and such suggestions (recommendations) could only be ready near or at the end of our work.

We secured the coöperation of officers of the Board of Education and of the supervisory and teaching force in getting facts and in reaching and verifying conclusions, not only because we needed the help of the Department of Education in getting the facts we required, but also because we desired to interest them in our inquiries. On the basis of their coöperation in pointing out existing defects

in the school system, we hoped to stimulate further investigation within the school system itself, to interest all concerned in recommendations for improvement, and so lay the foundation for a satisfactory practical result of our whole endeavor. Besides, in my opinion, any other procedure would have been futile; and the method adopted was the natural one, in view of our judicial attitude and constructive purpose.

In accordance with the first principle formulated above, the scope and details of our investigation were restricted to the following fields:

I. Elementary Schools; II. Vocational Schools; III. High Schools; IV. The Board of Education and Local School Boards.

As specialist in charge of the educational aspects of the Inquiry, I assigned the investigations to be undertaken in the fields enumerated to eleven associates nominated by me and approved by the Committee on School Inquiry.¹ These men were drawn from five of the leading universities of the country, two of the largest school systems, two well-known schools, and the Bureau of Municipal Research in Philadelphia. Only two of these men were able to give continuous service to the Inquiry, but none of them gave less than six weeks of time to it. My own work, in addition to planning and directing the Inquiry as a whole, consisted of active coöperation with my associates in working out the plans of their several investigations, and in detailed and continuous supervision and criticism of their work and reports as the Inquiry proceeded.

¹ For list of associates, see the Introduction.

CHAPTER II

STANDARDS IN EDUCATION

THERE are as yet no universally accepted standards whereby the adequacy of educational aims and practises can be judged. It is possible, however, by studying the practise of progressive school systems throughout the country to formulate the aims that determine their activities. Such formulations by different individuals will naturally differ in details; but if carefully made, they will agree in most essential features because they will represent what the American people want their schools to do. I have attempted such a formulation in the following paragraphs. It has been accepted in most particulars by my associates, and in the absence of a universally accepted standard of what instruction in public school systems should offer, it has been used, together with the conclusions reached by my associates in their study of details, to estimate the adequacy or inadequacy of New York City's educational offering so far as that offering was studied by us.

This attempt to formulate the aims or principles underlying the contemporary provision for and tendencies in American education is as follows:

Public education is a social force — it aims at social welfare and betterment. It is also the means of individual development — the fullest development (self-realization) of which each individual is capable.

As a social force, public education aims to preserve, improve, and transmit the resources of society — to develop in each individual *general* and *specific* social efficiency. *General social efficiency* means social intelligence and the power to deal effectively with social problems. *Specific*

social efficiency means vocational efficiency — efficiency in a particular calling.

As a means of individual development public education takes account of the nature of individuals and of the circumstances of their lives. It supplies the means of promoting their normal development as socialized human beings. It aims to arouse and develop all the worthy interests and the corresponding powers of each individual, so far as his ability and stage of development permit, in order that his life as an individual may be as full and rich as possible, and that no artificial obstacles may stand in the way of his spiritual or material advancement. Hence,

1. Public education should train efficient citizens — men and women who recognize and appreciate the common interests of our democratic society and are able to promote their progressive development. These interests are spiritual (intellectual, moral, esthetic), hygienic, economic, civic.¹

2. Public education should strive gradually to emancipate each pupil from external restraint and guidance, and thus render him self-directing — intellectually, morally, and physically stable, alert, vigorous, and active. Together with the instruction public education offers, it should therefore insist throughout on discipline that is wise, kindly, and firm, including appropriate punishment when it is needed — a discipline that insists on progressive conformity of conduct to insight, including habits of steady application and reasonable achievement.

3. Public education should endeavor to prepare each pupil to make the best use of his leisure as well as of his working hours. Satisfactory diversions and good recreative habits are important for both the individual and society.

¹ They are also religious; but because experience has shown that religious interests are inseparable from ecclesiastical interests, and society has an institution for promoting both at once — the church — a democratic society like ours wisely delegates the preservation and transmission of religious interests to the church.

Without disparaging harmless diversions and amusements, public education should therefore strive to develop an appreciation of, and a demand for, the serious pleasures our civilization affords.

4. Public education should strive to render each pupil economically intelligent and efficient. It should direct each pupil's attention to a vocation to which he may reasonably aspire; that is, every pupil should be led gradually to realize that a suitable vocation, accessible to him and adapted to him, is indispensable to a useful and happy life. As he approaches the end of his school career, whatever his age may be, he should come to see that his vocation will be not only the means of satisfying his personal wants and ambitions, but because it is the chief means of establishing significant relations between himself and his fellow-men, it is also the source of such public service as he is capable of and may be called upon to render. Public education should therefore provide for the development of vocational purposes based on vocational enlightenment (vocational guidance); and it should offer each pupil appropriate training for the vocation of his choice.

Schools must therefore be so constituted as to provide adequately:

(a) The means of appropriate and, so far as possible, complete general development (self-discovery, self-realization, and preparation for general social service for every pupil); and

(b) Various kinds of vocational training adapted to the needs, tastes, and future callings of all pupils who pass at once from school to their life work and for those who wish to improve themselves after they have gone to work (preparation for specific social service, *i. e.*, for usefulness).

They must therefore provide:

1. The elements of general culture, comprising

An insight into, appreciation of, and power to deal with
(1) the recorded ideals and experience of the race; and

(2) all worthy interests of contemporary life, so far as they can be rendered interesting, intelligible, and accessible to children and youth of school age.

That is to say, the school program (program of studies) must cover :

- (a) The school arts — reading, writing, arithmetic,
- (b) Language and literature (modern and ancient),
- (c) History, government, and economics,
- (d) Art (pictorial and plastic art, constructive art, and music),
- (e) Mathematics,
- (f) Natural science,
- (g) Manual arts and domestic arts,
- (h) Physical education, including physical training and athletics,
- (i) Vocational guidance,

in

- I. Kindergartens.
- II. Elementary schools, with differentiated upper grades, and well articulated with the
- III. High schools, having as wide a range of electives (administered under wise guidance) as possible.

2. Vocational training (training for specific social service) at the upper end of the elementary school in industrial and commercial schools, whether called secondary schools or not, in

(a) Day vocational schools for normal pupils over fourteen years of age, whether they have completed an eight years' elementary school or not, and who will not go to a high school.

(b) Day coöperative and continuation schools for pupils fourteen to eighteen years of age who cannot afford or will not take the time to attend a day vocational school.

(c) Evening continuation schools, vocational and non-vocational, for pupils over eighteen years of age who are at work during the daytime and desire to improve themselves in their leisure time.

(d) Vocational high schools — vocational schools of secondary grade.

(1) High schools of commerce.

(2) High schools of practical arts (technical high schools).

(3) Agricultural high schools.

Or well-organized separate departments of (1), (2), and (3) for vocational instruction in general high schools.

But the American people are not satisfied with schools for normal children only. They acknowledge their obligation to do all that can be done for exceptional children as well; hence they provide also schools or classes for

(a) Cripples.

(b) Anemic and tubercular children.

(c) Incurables and truants.

(d) Blind children.

(e) Deaf children.

(f) Mentally defective children.

In what follows, it will be seen that New York City meets the foregoing standard of educational opportunity only partially, and in some respects hardly at all.

CHAPTER III

ELEMENTARY SCHOOLS

THIS field of the Inquiry was subdivided as follows, in accordance with the second principle underlying our entire plan: (1) The Scope and Quality of the Instruction, and its adaptation to individual and social needs, and the Supervision by the Principals — one specialist; (2) Ungraded Classes (for Defectives) — one specialist; (3) The Courtis Tests in Arithmetic — one specialist; four administrative problems — (4) Intermediate Schools; (5) Promotions, Non-promotions, and Part Time; (6) Estimating the Needed Number of Elementary School Teachers — one specialist; (7) The Compulsory-Attendance Service — one specialist.

SCOPE AND QUALITY OF THE INSTRUCTION AND SUPERVISION BY PRINCIPALS

While the city provides a comprehensive program of elementary education which might conform to the standard formulated above, the actual work of the schools, in large part, both in its spirit and in its details, cannot be commended. While there is much good to excellent teaching, and some equally good to excellent supervision by principals and district superintendents, the quality of the teaching and supervision is, in general, not good. This adverse judgment of the spirit which dominates the actual work of the schools — the spirit of formalism in subject-matter and method, and the disregard for adaptation to social and individual needs — extends also to the course of study and the syllabi; for the quality of the teaching cannot be

judged apart from the course of study and the supervision by the principals and superintendents. The course of study is, indeed, fundamental, because it embodies the aims on which the work of the schools is based; but the supervision by the principals and other supervisors is necessarily a perpetual influence in determining the quality of the teaching; and the syllabi issued by the Board of Superintendents are intended to interpret to all their subordinates the aims and spirit of the course of study, and to suggest the methods whereby these aims and this spirit may be incorporated in their work—and in all these respects, as has been said, the elementary education of the city is, in general, seriously defective.

This adverse judgment of the details of the course of study and syllabi and of the quality of the teaching and supervision is based on a study of the printed course of study and the syllabi, on actual inspection of the work of the teachers, principals, superintendents and other supervisors, and on conferences with them. Course of study, syllabi, and supervision were judged by their success or failure to provide adequately for the acquisition of certain fundamental habits on the part of the pupils; those habits, namely, which are of vital importance in daily living. The quality of all three depends on the extent to which they enable the pupils to acquire as good a command of themselves and of their material and social environment (social resources) as their stage of development requires and permits.

To this end the emphasis in the subject-matter of instruction (course of study) should be on those elements of it which enable the pupils to assimilate the worthiest ideals, the real issues, and the most useful practises of contemporary life. Or, briefly, that subject-matter is most valuable that enables the pupil to appreciate and to deal effectively with the resources and problems of contemporary life, so far as his stage of development permits; and the course of study and syllabi are defective because they

do not provide satisfactorily for this subject-matter. On the contrary, they emphasize the formal aspects of knowledge rather than its living elements.

That teaching is most effective which develops habits of initiative, self-reliance, constructive imagination, judgment, and reasoning on the part of the pupils — habits essential to efficient thought and action. The teaching in the schools is defective, in general, because it does not aim at and fails to secure these fundamental mental habits and the corresponding conduct on the part of the pupils.

Supervision by principals and superintendents is most effective when it conspicuously helps to secure the course of study and the method just described. Since neither course of study nor teaching is good, the supervision is not good; it shows, rather, the lack of educational leadership; and this judgment was further confirmed by conferences with the teachers and by inspection of the work of the supervisory officers.

For the improvement of the work of the elementary schools, we suggest, first, certain minor but important changes in the course of study, such as the elimination of technical grammar as a separate study; a thoroughgoing revision of the course in nature study and natural science; the elimination of English history as a separate study, restricting it to those topics that are necessary for the proper understanding of United States history, to be taught in connection with United States history; the elimination of a considerable part of the present course in arithmetic. We recommend restricting the course in arithmetic during the first six years to securing accuracy and reasonable facility in the fundamental operations — addition, subtraction, multiplication, and division of whole numbers and simple fractions, both common and decimal, together with percentage and its simplest applications to interest and trade discount; and the reduction during the last two years of the time devoted to arithmetic to not more than three forty-minute periods per week; and during those two years,

chiefly, except as individuals may require additional instruction in the fundamentals, to applications of arithmetic in geography, history, nature study, manual training, and other subjects. Further, an extensive rearrangement of the subject-matter of the course of study is desirable, for the purpose of establishing a fuller correlation among studies, in the interest of unification of the pupils' acquisitions, and particularly for a thorough revision of the work of the seventh and eighth years.

On this last point I desire to make a recommendation which seems to me, in its purpose, to be in accord with a contemporary tendency throughout the country, namely: Whether the thoroughgoing recommendation for flexibility in the course of study recommended below is adopted or not, it is important that greatly increased flexibility in subject-matter and administration should characterize the instruction of the last two elementary school years, in harmony with the varying future careers of the pupils. Some of the pupils are going on to the high schools, some are going into industry or commerce or home life as soon as they are freed from school by the compulsory-attendance law. Many of the pupils in these years are over age and have no interest in the usual "academic" work beyond reaching the standard that will set them free. In any case a single uniform course of study for these pupils is not satisfactory in view of their different purposes.

I suggest, therefore, that in a few schools, at least, the experiment be thoroughly tried and appraised long enough really to determine its value or the reverse, of a differentiated course of study: one for pupils going on to the high schools, rich in the usual academic studies (including a modern language, if well taught); one for pupils going into industry, rich in the right kind of manual training, and in the domestic arts for girls; and a third for boys and girls going into stores or other commercial shops, rich in elementary instruction in commercial subjects. While no one of these differentiated courses should neglect the

subjects emphasized by the others, the dominant subject-matter should be clearly evident to parents and pupils alike. Such differentiated courses are already established in a near-by state, and are decidedly promising in ministering to social and individual needs, not only holding pupils in school, but giving them something of real value to them while they remain. There is every reason to believe that such courses might prove to be equally advantageous in New York City. This recommendation applies with special force to the intermediate school, to be discussed later.

Over and above the foregoing suggestions for the improvement of the course of study in certain details is the following — which, however, covers those already made; namely, the adjustment of the entire course of study to individual and local needs throughout the city. The differences in respect to individual and local needs in the hundreds of elementary schools in New York City with its heterogeneous population are very great, and they are not now satisfactorily taken into the account.

A single uniform course of study prevails throughout the city. True, it is claimed by the City Superintendent that the liberty of principals to adapt and modify the course of study to local and individual needs is “practically infinite”; but justly or unjustly, that is not the view of their responsibilities held by great numbers, perhaps the majority, of the principals. They point out that they are bound by the syllabi; and that means uniformity. Conspicuous lack of adaptation of subject-matter and method to social and individual needs therefore abounds, with corresponding lack of satisfactory achievement.

We accordingly suggest that great relief and improvement would follow the gradual adoption of different courses of study and syllabi for schools in different parts of the city — these courses to be worked out by the principals and teachers, aided by the best of their superior officers; and that these courses be tried long enough to show their value or otherwise. (It is conceivable that each school

in the city might advantageously have an appropriate course of study, differing, to some extent at least, from every other.) This would bring professional insight, life, and enthusiasm into the schools, where now there is passive or restive conformity to what is undoubtedly regarded, justly or unjustly, as a prescribed routine, with its deadening effect on pupils and teachers. The present conditions point to an enormous loss of educational opportunity, to say nothing of money. We urgently recommend that this plan be seriously considered, and if possible acted on without delay.

It will be urged, of course, that because of the great number of pupils and the shifting of the school population, uniformity is necessary for satisfactory administration; but the schools exist for the children, not for the system. If the proposed plan is wise, and if it commends itself to those whose business it is to administer it, the way to carry it into effective execution, though much more difficult than the present administration of a uniform course of study, will be found. The great importance of securing suitable flexibility in elementary education, instead of what is now largely an attempt at rigid uniformity, with its deadening effect on teachers and its failure to educate the pupils (by the standards we have applied, at least), justifies the most serious study of our recommendation, however fantastic it may seem to some persons — and, in our opinion, the adoption of it for thorough trial after such consideration. If its adoption seems to be impossible, then some other effective plan to accomplish the same end should be found without delay.

Improvements in the course of study would naturally be accompanied by corresponding improvements in such syllabi as would still be found necessary. When teachers and principals themselves make the course of study and syllabi, as they should, all but the poorest teachers are imbued with the spirit embodied in them, and their methods will be in harmony with this spirit and their conscious aims.

For the unsatisfactory supervision by the principals the principals themselves are not wholly responsible. Purely administrative duties, owing to the great size of many of the schools, leave the principals without time for supervision; little real authority is possessed by the principals in regard to the course of study or methods; a widespread tendency to regard the district superintendents rather than the principals as the native heads of the school; the absence of authorized means of securing prompt and well-considered replies to recommendations submitted by the principals to their superior officers; the required frequency of the rating of teachers, and the method employed in rating them — all these seriously hamper or prevent able principals from giving their teachers helpful supervision. For these conditions, unfavorable to satisfactory supervision, the principals are responsible only in so far as they acquiesce in them. That is true also, finally, of another reason for the unsatisfactory supervision by the principals; namely, the absence of a clearly conceived theory of supervision — its aims and methods.

These conditions can be improved if initiative be encouraged among principals, and their coöperation under the leadership of their superior officers be systematically promoted. Such initiative and coöperation would undoubtedly also check the further establishment of enormous elementary schools — schools having upward of a hundred teachers; it would tend to place on the principal the authority he requires for the proper supervision as well as administration of his school; it would provide for a recognized channel of communication from the principals individually and collectively to their superior officers, and would keep this channel open and in use; it would tend to improve the basis and the method of rating teachers, and so make possible a reduction in the frequency of this rating, with an increase in its value; and it would develop a conception of really helpful supervision of inestimable value to the progressive efficiency of the schools. Supervision by

district superintendents is discussed later, in connection with the general system of supervision.

It is unnecessary to consider here details treated in Professor McMurray's report.¹ But I desire to emphasize at least two of them, because of their immediate vital importance.

A serious administrative problem is presented by persistently unruly children, which deserves careful and immediate attention because of the harmful effect of such children on the classes and schools where they are found. The character of some of the pupils in many schools necessitates a change of policy in the city in relation to corporal punishment. It is not now permitted, but is nevertheless practised. It cannot be avoided. It is the inevitable result of persistent harassing of teachers and principals by unruly and defiant pupils. By force only can such pupils be restrained from a downward career for themselves, and from exerting a baneful influence on the welfare of their classmates and even entire schools. It is manifestly unwise, however, to have punishment administered in violation of the regulations. Our study of the existing conditions induces us to recommend, (1) That the by-laws of the Board of Education expressly forbidding corporal punishment be rescinded; that the number of parental schools and disciplinary schools be increased; that the mode of commitment to these schools be greatly simplified; and that corporal punishment be allowed in them; (2) that in other schools, when it is deemed advisable by the principal, one class or more, composed of persistently troublesome children, shall be formed, after the type of the present ungraded classes; and that in these special classes corporal punishment be allowed under certain restrictions set forth in the report. The mere knowledge on the part of unruly children that they may be subject to corporal punishment will often make such punishment unnecessary. The plan here recommended will, we believe, reduce the number of cases

¹ See "Elementary School Standards" in this series.

of corporal punishment to the inevitable minimum, and will greatly benefit all concerned.

Important as vocational guidance is, hardly a beginning of systematic endeavor in that direction in the hundreds of schools throughout the city has yet been made. What is most needed is organized effort toward equipping selected teachers so that they can serve as leaders in the difficult task of utilizing such resources as are now available for the actual work of vocational guidance, and in adding to those resources. It may not be out of place here to emphasize once more the fact that vocational guidance does *not* mean merely helping boys and girls to find work, but to find *the kind of work they are best fitted by nature and training to do well*. It *does not* mean prescribing a vocation; it *does* mean bringing to bear on the choice of a vocation organized information and organized common sense. It should therefore not only tend to bring about a better adjustment of the boy to his work, but also point the way to more education for more efficient work.

From the foregoing adverse judgment on the quality of the instruction in the elementary schools of New York City, the kindergartens are expressly excluded. The kindergartens are plainly fulfilling their purpose reasonably well.

UNGRADED CLASSES

The magnitude and seriousness of the problem of caring for mentally defective children will be appreciated when the city realizes that the number of such children in the public schools is not less than 15,000, while there are only about 2,000 in present ungraded classes; that the presence of such children in classes for normal children seriously handicaps both teachers and pupils; that the means of discovering defective children and segregating them and caring for them, so far as they are segregated, are at present inadequate and defective; and, finally, that the danger of allowing such children to grow up at large is a

very grave one. Such persons not only become a burden to society themselves, but propagate their kind in large numbers by marriage or illegitimate unions with each other or with normal individuals.

We have not discussed the question whether these unfortunates should be discovered and cared for by some other agency than the public school system, say the Board of Health, but the point is deserving of serious consideration. The question is, of course, whether the problem is principally medical or educational. Up to the present time, the public school system has been charged with caring for defective children. The report accordingly deals with the way in which the schools are carrying this responsibility, and offers suggestions for future procedure.¹

Nearly all of the ungraded classes were visited. Much is being done, but much more must be done in the interest of the normal children and of society at large, as well as of the defective children themselves. The entire treatment of defective children is at present inadequate, owing to inadequacy of the means and methods of recognizing mental defectives, particularly the high-grade type; and there is great waste of time and effort in the present ungraded classes, owing to the attempt to teach defective children reading, writing, and arithmetic, which they will never learn well enough to use, instead of vocationalized manual training and other forms of industrial work; and many of the children are not getting what they might get because of lack of proper class-room equipment and materials. All this is largely due to the lack of adequate organization, administration, and supervision for the proper discovery and treatment of defective children, together with the lack of trained teachers.

We accordingly recommend a radical enlargement and extension of the work of the ungraded classes — a Superintendent of Schools and Classes for Defectives; at least four additional associate inspectors; five examiners (psy-

¹ See Dr. Goddard's volume in this series.

chologists and physicians) to discover and classify defective children; the segregation of the ungraded classes in special schools as fast as possible; the prompt and adequate equipment of the ungraded classes with the appropriate materials for instruction; the establishment as rapidly as possible of the right kind of training schools for teachers of defectives; the amendment of the child labor law so that defective children may go to work as soon as it is clear that they would be more profitably employed at work than in school — provided such children cannot be placed in an institution or colony for permanent segregation; a substantial increase in the bonus now paid to teachers of defectives who show growth in efficiency. We especially recommend (a) the appointment at once of a number of special assistants whose business it shall be to follow up the history of defective children after they have passed through the schools, in order that the facts of their lives may throw light on their satisfactory care and treatment — whether these should be educational, medical, or custodial, or all three combined — for their own welfare and the welfare of society, and (b) adequate, *i. e.*, greatly increased, expenditures. The cost of carrying out these recommendations will be much greater than the present expenditure. But, *whatever it costs*, the city cannot safely perpetuate the present inadequate measures of discovering and caring for its mentally defective children, and run the further risk of allowing the present progressive increase of mental defectives to continue unchecked.

THE COURTIS TESTS IN ARITHMETIC

Education is seeking a scientific basis. We are aiming to substitute established educational facts and verified conclusions based on them for individual opinion, no matter how authoritative. The foundation of all science is accurate measurements of the facts with which it deals. It will be some time, however, before we have such a firm

basis for the science of education — for educational theory and practise.

Meanwhile a number of promising beginnings have been made, and some of them have passed beyond the stage of beginnings. Among these are the Courtis Tests in Arithmetic. These tests, which represent the most successful attempt at scientific measurement in education known to me, have been developed by Mr. Courtis through several years of investigation over a wide area in this country and abroad. It seemed important that we should apply this illustration of the scientific method of investigating and appraising educational results in at least one important field of work, and I therefore gladly availed myself of the opportunity to secure Mr. Courtis himself to direct the application of his tests in New York City. I wished to show how such or similar studies should be incorporated in the regular work of the school system in the interest of the education of the children, the teachers, supervising officers, and the general public.

Such studies point the way to real progress in education. In every field of work they are imperatively needed. They would show how unsafe is complacent, or at least tacit, acquiescence in our present generally unsatisfactory basis — mere educational authority based on general opinion and personal experience; and they would furnish a guide to practise, the validity of which neither teacher nor layman could disregard. It is because the Courtis tests show this for fundamentals in arithmetic — one of the most important studies — and at the same time show what the present arithmetical achievement of the schools in those fundamentals is, and because they furnish important suggestions for future procedure in teaching and supervision, that we have used them.

The central idea of the Courtis tests is that *the same test* is applied *under the same conditions* in every grade, and that growth in ability in the fundamentals tested is shown in increased accuracy and speed in the work done.

The tests were applied to 33,350 children — approximately one-tenth of the pupils in the grades 4A to 8B in schools selected at random, but widely distributed throughout the city. As a whole, the results show great inefficiency in both accuracy and speed in computation, and in simple reasoning; and they show, further, that children of *every level of ability* (the average score for a grade) *are found in every grade*; and that *differences between individuals greatly exceeded differences between grades*. Such results, it should be noted, are not peculiar to New York City; they have been found wherever the Courtis tests have been applied. Compared with children in other cities, New York City children are slightly better in speed, but correspondingly worse in accuracy, and very poor in reasoning.

These conditions are not due to lack of effort on the part of the teachers, but to the neglect of a basic factor in education — adaptation of the work to individual differences. We accordingly recommend that present methods be so modified as to base the work in fundamentals, at least, on the measured individual needs of the pupils; that standard tests and standard achievements be adopted to increase definiteness of aims in teaching the fundamentals of arithmetic; that investigations be undertaken to determine the effect of all the factors that determine ability and condition mental growth; that the effectiveness of various methods of work be tested by certain scientifically controlled experiments; and, finally, that the Bureau of Investigation and Appraisal¹ recommended elsewhere in this report organize and control these investigations and experiments.

¹ See page 86.

CHAPTER IV

CERTAIN PROBLEMS IN THE ADMINISTRATION OF THE ELEMENTARY SCHOOLS

FOUR important problems in the administration of elementary schools were included in our investigations at the suggestion of the Chairman of the Committee on School Inquiry; namely: The advantages or disadvantages of Intermediate Schools; Estimating the Needed Number of Elementary School Teachers for Educational and for Budget Purposes; Promotions, Non-Promotions, and Part Time; and the Efficiency of the Compulsory-Attendance Service. Our study of these problems, besides aiming to secure the information sought so far as that was possible with the time and staff at our disposal, is also intended to show how organized educational statistics may be used to promote the progressive solution of certain administrative problems.

INTERMEDIATE SCHOOLS

Intermediate schools in New York City are schools in which seventh- and eighth-year pupils (grades 7A to 8B) are segregated. There are three such schools—all in Manhattan. They were organized to relieve congestion—two of them in 1905, and one in 1907; and although they at once proved their value for this purpose, none have been organized since. Meanwhile, congestion throughout the city has greatly increased. In spite of the service rendered by the intermediate schools, their value has been seriously questioned. Accordingly, we have studied them from three points of view: Their educational efficiency as measured

by their power to hold pupils in school compared with schools having all grades, and the relative rate of progress of pupils in the two kinds of schools; the relative cost of the two kinds of schools; and the peculiar opportunities the intermediate schools offer to adapt instruction and management to the varying needs of the pupils.

In this comparative study we have used data collected from the three intermediate schools and certain neighboring or contributing schools. In the time at our disposal it was possible for us to collect and use only data pertaining to the February-June term, 1911; hence our conclusions cannot be regarded as final. Such study, however, illustrates the method which would yield final conclusions if applied to the data for a number of years.

Educational Efficiency

Our study of the data used leads to the following provisional conclusions: Fewer pupils leave the 6B classes in schools having only 1A to 6B grades by .43 of 1 per cent than leave the 6B classes in schools having all grades; fewer pupils leave the seventh- and eighth-year classes of intermediate schools by 1.75 per cent than leave the seventh- and eighth-year classes of schools having all grades; more seventh- and eighth-year pupils are promoted in intermediate schools by 2.04 per cent than are promoted in schools having all grades; thirteen times as many terms of work are lost by seventh- and eighth-year pupils in schools having all grades as in intermediate schools. On the other hand, more 6B promoted pupils by .67 of 1 per cent fail to enter the 7A grade of intermediate schools than when they can enter that grade in their home schools. Thus, on all the counts save the last, the intermediate schools show distinct superiority over the schools having all grades; and on this last count the difference is slight.

Relative Cost

The difference in cost between the two kinds of schools depends almost entirely on the three following items: the number of school rooms, the number of teachers, and the equipment and supplies needed for instruction of a given number of 7A-8B pupils. Comparing the intermediate schools with schools having all grades, employing substantially the same schools as before, in respect to these three items, we find that 5.31 per cent fewer class rooms, 27.31 per cent fewer shops (or 19.53 per cent if the shops are used also by other than 7A-8B pupils), 17.17 per cent fewer cooking rooms (or 6.3 per cent if the cooking rooms are used also by other than 7A-8B pupils), and 18.16 per cent fewer gymnasiums are required to instruct a given number of 7A-8B pupils in the intermediate schools than in schools having all grades. Combining these results, it appears that the intermediate schools require fewer rooms for the instruction of a given number of pupils by 8.11 per cent, or at least 6.88 per cent. Using these differences and the actual number of rooms used to instruct a given number of 7A-8B pupils in schools having all grades, it appears that, if 20,000 7A-8B pupils could be segregated in intermediate schools, the difference in cost of regular class rooms, shops, and gymnasiums would be not less than \$100,000, together with an annual difference in favor of intermediate schools of 6.88 per cent in upkeep and operating expenses.

We find also that 5.13 per cent fewer regular class teachers, 8.07 per cent fewer manual training teachers, and 8.07 per cent fewer cooking teachers — the three kinds of teachers employed — are required to instruct a given number of pupils in intermediate schools than in schools having all grades. Combining these results, we find that the intermediate schools require fewer teachers than schools having all grades by 5.36 per cent. This difference represents a difference in annual cost of not less than \$35,000 in favor of intermediate schools.

It is evident that although there would be no difference in the amount of supplies used which are directly consumed by the pupils (such as pens, paper, pencils, ink) in intermediate schools and in schools having all grades, there would be a saving in equipment of a more or less permanent sort (maps, globes, scientific apparatus, gymnasium, cooking room and shop equipment) in intermediate schools, because fewer class rooms, shops, cooking rooms, and gymnasiums are required. Data for the amount spent for this equipment were not available for our use, but it is clear that the amount would be a considerable sum.

Educational Opportunity

The foregoing considerations pertain only to the intermediate schools as now organized and conducted. Such schools offer, however, excellent opportunities to render a service far beyond their present usefulness. They afford, as already said, an unusually good opportunity to adapt instruction during the last two years of the elementary school to individual and social needs through differentiated courses of study. The pupils of an intermediate school have reached the age when they are passing through the stage of later childhood and early youth. The physical and mental changes of early adolescence, and the dawning interest in social responsibilities, demand much more careful consideration than they usually receive. The segregation of such pupils in a separate school brings all the special problems of their education into prominence. Consequently the teachers of such schools may, under wise guidance, develop peculiar skill in dealing with them. Such problems are the appropriate differentiation of courses of study to meet individual and local needs; segregation of the sexes, with appropriate modification of teaching and management for each sex; grouping the pupils in accordance with varying abilities, health, industry, ambitions, and home conditions; articulation of the different courses of study,

with high schools and with vocational schools; vocational guidance; organizations of pupils for self-government, athletics, club work, social activities; in general, problems connected with the larger freedom appropriate to the age of the pupils, through which they may exercise and develop the insight and self-direction that will make school life real — that part of their lives that makes all the rest of their lives now and later more significant and valuable.

Accordingly, we recommend that immediate studies be made of localities where conditions seem favorable to the establishment of intermediate schools, and that such schools be established where conditions are found to be favorable; that when established such schools be so planned and conducted as not only to serve their present purpose, but also to aim at the fuller realization of the educational opportunities they may afford as outlined in the report; that pains be taken to maintain coöperating relations between contributing schools and intermediate schools on the one hand, and effective articulation between intermediate schools and high schools and vocational schools on the other; that the peculiar opportunity to develop systematic vocational guidance be fully utilized; and, finally, that the Bureau of Investigation and Appraisal recommended in the report be charged with the duty of making the investigations concerning the establishment of intermediate schools, and as to their efficiency and economy when established.

PROMOTIONS, NON-PROMOTIONS, AND PART TIME

Prior to the beginning of our work, the Chairman of the Committee on School Inquiry had asked the City Superintendent of Schools to furnish certain data concerning promotion, non-promotion, and part time, with a view to determining whether the alleged causes of non-promotion reported by the City Superintendent were real causes; to what extent part time was responsible for non-promotion; and whether part time was otherwise an evil. When our

work began, the data the Chairman had asked for were not yet collected; and we were asked to go on with the investigation. Our first task, therefore, was the planning, collecting, and tabulating of the desired data covered by fourteen questions pertaining to each child in the elementary schools of the entire city.¹

Tables prepared by the City Superintendent calling for the desired data to be supplied by the principal of each school were sent out as revised by us as soon as possible, and were returned to us, filled as requested, about July 10, 1911. Then followed the further task of tabulating this huge mass of data, which, with our clerical staff, required several months; and finally the interpretation of the data as collected, which again required several months of labor by the one associate whom I had assigned to this statistical work, in addition to other work. Long before this work was finished, it was clear that the data collected would not furnish conclusive answers to the questions the Chairman had raised, and we reported accordingly. Nevertheless, the data collected do supply valuable information never before collected, some of which has been utilized by us in defining and suggesting other important problems. Some of this material will be considered in this summary.

It is obviously undesirable to reproduce here any of the statistical details on which our findings and recommendations are based. We found that in all the boroughs the rate of promotion was lowest in the 1A grade, ranging from 75.37 to 76.97 per cent; and highest in the 8B grade, ranging from 93.71 to 97.25 per cent. In the remaining grades the rate of promotion ranged from about 88 to about 91 per cent. The problem of increasing the rate of promotion in the 1A grade is primarily a question of getting the pupils into school at the beginning of the term and keeping them there.

¹ The investigation was, however, restricted by us to children in regular classes and to promotions at the end of the February-June term, 1911.

In spite of the uniformity in the rate of promotion throughout the city, there is evidence that, on the whole, promotions were made with discretion and not on a merely mechanical or numerical basis. Nevertheless, there was a decided increase in the rate of promotion over preceding terms — amounting to 4.56 per cent in a single year. This increase was probably due, in part, to pressure by the City Superintendent “to secure more generous promotions,” although he took pains to impress on principals and teachers that pupils should not be promoted who were unfit to do the work of the next higher grade. The City Superintendent was justified in his endeavor to increase the rate of promotion, because it is desirable to make the standard of promotion such that pupils in large numbers can enjoy the advantages of the upper grades. (These grades emphasize literature, history, geography, and other studies and activities pertaining to “life,” while the earlier grades necessarily emphasize the school arts.) Such a standard should, however, be explicitly described and authorized, not merely implicitly recognized and therefore vaguely approved.

Conditions favorable to a maximum rate of promotion have not been studied and provided for. Such conditions must be based on investigations over a sufficient length of time and should include the best age of entrance to the elementary school; the age at which children need a régime of instruction and management different from that appropriate to the elementary school; the number of normal children entering on and completing the present course of study; the actual time required by children to complete the present course of study with the standards now approved, together with a clear and adequate statement of what these standards are; the actual length of time normal children remain in school — including their attendance on schools in other places — and the length of their attendance between the ages of six and fourteen years; and what groups of children of varying abilities, and needs

requiring different courses of study, should be formed. We recommend that there be as many different courses in each school as there are groups of such children; that the actual total length of such courses as revealed by investigation and the standards adhered to be such that each normal child in regular attendance can complete one of these courses between the ages of six and fourteen.

As promotions were made in the February-June term of 1911, oversize classes, *i. e.*, classes having more than 50 pupils, contributed but slightly, if at all, to non-promotion, *i. e.*, to congestion. This statement does not mean, however, that educational opportunity and achievement were as good in classes over 50 as in classes under 50. We recommend that special investigations be made into the educational efficiency of classes of varying sizes; *i. e.*, *how much* less efficient oversize classes are than smaller classes.

Absence is a very large factor in increasing the number of non-promotions and hence in increasing congestion. The corresponding responsibility of all concerned to get children into school and to keep them there is therefore clear.

Over-age of children, *i. e.*, the length of time children are behind the grades they ought to be in as determined by the accepted age-grade standards, is an important factor in increasing the number of non-promotions, and hence congestion.

The presence of pupils unable to use the English language does not materially affect the rate of promotion of a class as a whole, because of the relatively small number of such pupils in a class; but the progress of such pupils is decidedly less than that of the other pupils, particularly in the 1A grade.

A conclusive answer to the question whether part time is an evil in all grades, or only above the 1B grade, would require investigations exceeding the limits of time and means at our command. Such investigations should measure, among other things, the effect of part time as com-

pared with whole time on the health and physical development of the children; the comparative achievements of the children in the two kinds of classes; and should study the differences in the interests, habits, and conduct, in school and out, of the children in the two kinds of classes.

Our data enabled us to deal with only one phase of the educational aspect of the problem; namely, the rate of promotion in the two kinds of classes. We found that in the twelve grades in which there were both whole-time and part-time classes (part time was practically confined to the grades 1A to 5B inclusive), the rate of promotion in whole-time classes was higher than in part-time classes in nine grades and lower in three (4A, 4B, and 6B). This lower rate, it should be noted, is most significant in the lower grades, because 88.84 per cent of all part-time pupils are in the 1A to 3B grades, and it is precisely in those grades that part time has been supposed to have least effect on the progress of the pupils. There is no reason to suppose that the lower rate of promotion in the 1A to 3B grades in part-time classes is indicative of higher standards than in the whole-time classes; on the contrary, part time means congestion, and congestion of itself tends to forced promotions, *i. e.*, to a higher rate than in whole-time classes. We found also that although the rate of promotion was lower in part-time classes taken together than in whole-time classes, the *direct effect* of part time on promotions was small, because of the relatively small number of non-promotions among the total number of part-time pupils. We could not inquire into certain possible indirect effects, such as indifference to school work, bad conduct, and truancy, which deserve careful investigation. We found also that part time was a very small factor in promoting congestion, if its influence was felt at all.

Considering the rate of promotion in the different kinds of part-time classes, we found that the rate of promotion was higher in Ettinger part-time classes than in the others, and that on the whole more pupils were promoted in these

part-time classes than in whole-time classes. This last fact should not be taken to mean, however, that Ettinger part-time classes are educationally superior to whole-time classes. For a higher rate of promotion is not alone sufficient evidence of such superiority.

Summarizing our findings, based on the available data, — the data for the February-June term of 1911 only, — we find that, considering each of the alleged causes of non-promotion separately, part time and oversize of classes are responsible for relatively few non-promotions; that irregular attendance is a decided factor in increasing the number of non-promotions; that late entrance to school and sluggish mentality as expressed in retardation are material factors in causing non-promotion; that inability to use the English language increases decidedly the number of non-promotions in the relatively small number of pupils affected.

In view of the slightly lower rate of promotion for over-size classes, but more particularly because of the acknowledged educational disadvantages of such classes, the strong disapproval of part-time classes by the general public, and the prevailing practise in other cities, we recommend that all classes having more than 50 pupils should be reduced to classes of 45 pupils, and that all part-time classes be eliminated. In view of the decidedly lower rate of promotion of retarded pupils and of pupils unable to use the English language, we recommend that classes in which special attention shall be given to retarded pupils be provided, at least, for all pupils two years or more behind their grades; that the course of study be specially modified for such pupils; and that classes for the special instruction of pupils unable to use the English language be provided, — at least, for all such pupils in grade 1A. To carry these recommendations into effect would require a very large sum of money.

Widespread dissatisfaction within and without the school system, with part time as an expedient for relieving congestion, is, however, steadily exerting pressure on the

Board of Estimate for appropriations sufficient to build the school buildings required. Although, as was said above, the time and means at our disposal could not enable us to ascertain whether part time is an evil, we share the view widely held, that every American school child is entitled to a full day's schooling, under the most favorable conditions that can be provided for his present and future welfare; and since further delay will merely make present conditions worse, we recommend that, although the cost of such schooling for the vast number of children in New York is very large, the city begin at once to appropriate the necessary funds.

One important item of information collected by us is the number of children who leave school without completing the course. We found that during the February-June term of 1911, 30,995 pupils in regular classes left school. Of these, 18,134 were either subject to the compulsory-attendance law or were under seven years of age, and hence they will probably return to school; 12,861 doubtless left school permanently. These are large numbers. Moreover, there is no reason to believe that the number leaving in the term under consideration is exceptional, and the causes of pupils' leaving should be thoroughly investigated. We accordingly recommend that as a preliminary step in the reduction of school losses, the reports from the several schools on pupils leaving and the reasons therefor be collected and tabulated, term by term, for the city, so that these losses may be known and faced and the causes eradicated so far as they are found to lie within the schools.

ESTIMATING THE NEEDED NUMBER OF ELEMENTARY SCHOOL TEACHERS ¹

¹ The report on this subject could not be completed by the time "The Report as a Whole" was submitted to the Committee on School Inquiry.

THE COMPULSORY-ATTENDANCE SERVICE

The organization and work of the compulsory-attendance service have been severely criticized since 1908, when the associate superintendent in charge of the service stated in his report that the "method of doing the work was grossly defective," that "systematic and effective work is lacking," and that "the results produced are not commensurate with the amount expended." Through the specialist who had been assigned by me to investigate and report on the compulsory-attendance service, we made a preliminary report to the Committee in October, 1911. The facts presented at that time, though admittedly incomplete, were important. These facts and others were from time to time submitted to the associate superintendent in charge of the compulsory-attendance service, together with suggestions for the reorganization of the service. These facts and accompanying criticisms and constructive suggestions were utilized by the associate superintendent in formulating a plan of reorganization. This plan, with modifications, was accepted by the Committee on Special Schools, a Committee of the Board of Education, and later, on April 24, 1912, by the Board itself.

Meanwhile, in his report for 1911, the City Superintendent recommended a sweeping change in the organization of the compulsory-attendance department; namely, that it should be removed from the special direction of the City Superintendent, that it should be placed under the general direction of the Permanent Census Board, and that it should be administered (subject to the general direction of that board) by the secretary of the Permanent Census Board. On the other hand, the reorganization adopted by the Board of Education proposed definite changes in methods of testing the efficiency of attendance officers and of inspecting their work.

Our original plan was to investigate the present organi-

zation and procedure of the compulsory-attendance service, in order to ascertain where, if at all, inadequacy of results was due to organization and methods and to make suggestions for improvement. The action of the Board of Education referred to above made the presentation of the details originally intended unnecessary, inasmuch as the proposed reorganization is an acknowledgment of defective organization and procedure. Accordingly, the purpose of such details as we presented concerning present organization, methods, and results is primarily to support and facilitate the plan based, in part, on our facts and suggestions, and adopted by the Board of Education on April 24, 1912—the plan to which the school system is now committed.

We are in entire agreement with the proposal of the City Superintendent of Schools that the functions of the compulsory-attendance service and of the Permanent Census Board be united in a single organization. We are convinced, however, that this organization should be responsible to the Board of Education and not to the Permanent Census Board—an independent organization. The investigation of causes of irregularity of attendance, delinquency, and unsatisfactory progress of school children, preventive treatment for minimizing or removing these causes, and disciplinary treatment for the application and enforcement of remedial measures, are integral and indispensable elements of educational administration. Hence such functions should not be isolated, or removed from the control of the Board of Education—the authority responsible for educational administration as a whole.

One important aspect of a satisfactory compulsory-attendance service deserves special attention. The service at present limits itself unduly to the performance of police functions, aiming chiefly at the immediate explanation and checking of truancy and irregularity rather than at the *prevention* of truancy and irregularity by attempting to

discover and control their causes. Such control of truancy by police methods alone is quite inadequate and often inappropriate. The harmful effect of irregularity of attendance on the education of children was pointed out above in the discussion of promotion and non-promotion. The evil effect of irregularity and truancy on character and conduct during and outside of school hours is obvious. The prevention of irregularity and truancy by striking at their causes are therefore even more important than the attempt to cure them.

We accordingly recommend a reorganization of the compulsory-attendance service and an enlargement of its program so as to include preventive as well as corrective and disciplinary treatment; and accompanying this reorganization, first, a complete revision of the system of records and reports as suggested in the report, so as to provide an adequate basis — now lacking — for administrative judgment and control, and second, a standardization of all routine functions.

To effect this reorganization and change of methods, we recommend further than an Attendance Bureau, responsible to the Board of Education, be constituted, and that this bureau have charge of all functions now discharged by the compulsory-attendance service, the Permanent Census Board, Public School No. 120 (Manhattan), and the corps of visiting teachers now supported by the Public Education Association or to be appointed by the Board of Education, if any; that administrative control of this bureau be completely vested in a chief responsible directly to the Superintendent of Schools; and that a district supervisor, directly responsible to the bureau chief, be appointed for each of the twenty-three districts into which the city is now divided; that district superintendents be relieved of all responsibility for the administration of the compulsory-attendance service, except the conducting of judicial hearings in cases brought before them by supervising attendance officers; and that the staff of the bureau,

in view of the functions to be discharged, be organized as follows:

A Division of Enumeration and Investigation — to maintain a correctly revised census list of all children of school age, and to make preliminary investigation of all cases referred to the Attendance Bureau, and report thereon.

A Division of Prevention and Probation — to make more exhaustive investigation of cases not disposed of through the first division, to ascertain the causes of irregularity, and on the basis of a diagnosis of each case to suggest a plan of treatment which may require the coöperation of the parents, the teachers, and various voluntary agencies; and to act as probation officers.

A Division of Discipline and Prosecution — to deal with cases which have not yielded to the methods of the division of prevention and probation, and in which coercion may be necessary; and to prepare and prosecute all cases against parents and children for violation of compulsory-attendance laws.

A Division of Correction — to maintain a day detention school in each of the twenty-three attendance districts, and the parental school or schools for the custodial care of children who cannot be satisfactorily dealt with in the day detention schools.

CHAPTER V

VOCATIONAL SCHOOLS—WHAT KINDS OF VOCATIONAL (INDUSTRIAL) SCHOOLS ARE NEEDED

WHILE the city of New York makes comprehensive provision for general elementary education, its provision of only two elementary vocational schools—the Boys' Vocational School and the Manhattan Trade School for Girls—is so meager, in view of what is needed, as to be almost negligible. Hence we are here concerned only incidentally with these two schools, and devote ourselves especially to the problem of what kinds of industrial schools are needed.¹

The Boys' Vocational School in Manhattan is not a trade school—it does not claim to send out an artisan. It does endeavor to lay a good foundation for a real industrial apprenticeship in a commercial shop. It gives the boy some manual dexterity and industrial insight, on the basis of which he may make a wiser choice of a trade than he otherwise could; and it increases his immediate earnings on going to work, and his prospects for the future. The number of pupils in average daily attendance in 1911-12 was 266, an insignificant number in view of the thousands of boys who leave the elementary schools every year, either with or without graduating, to go to work. This kind of school is good, so far as it goes. But if additional schools of this kind were established, they would serve their purpose better if the industrial scope of their work were extended and made less intensive. Too much stress is now

¹ Secondary schools for vocational education (vocational high schools) are discussed in a later section.

laid on manual skill in a particular trade or branch of a trade, to provide adequate opportunity for satisfactory vocational guidance, based on a sufficient acquaintance with industrial occupations.

The Manhattan Trade School for Girls aims to train girls so that they become skilled workwomen in a shorter time and in a larger and more intelligent way than is possible in the trades themselves. It is not a trade school. It does not train artisans. It does aim, through the variety of its occupations (and in this respect it is superior to the Boys' Vocational School), to start girls successfully in industrial life; and particularly to get them beyond the "blind alley" jobs at about \$3 a week to apprenticeships at about \$5 a week. The number of pupils in 1911 (average daily attendance) was 360 — again an insignificant proportion of the thousands of children (girls) who go to work at an early age. So far as it goes, however, this school is well planned to meet the needs of those girls.

One serious difficulty in the development of the school is lack of freedom in the selection of teachers for the distinctly vocational work. Directors of vocational schools should therefore be given power to determine the fitness of such teachers in whatever ways seem best. The usual examinations will determine neither the fitness nor the unfitness of such teachers.

Both the schools are pre-vocational schools; they are attended by those pupils only who can afford to go to a day school after they are fourteen years old. Such schools are therefore selective in their educational influence, reaching only a limited number of those who need vocational education. For this reason, this type of school alone could never offer an adequate solution of the problem of vocational education, valuable as it is — particularly the girls' school — for those pupils whom it does reach.

We heartily indorse the City Superintendent's recommendation for the establishment of additional vocational schools. The important question is, however, What *kinds*

of vocational schools? The city needs a well-founded, clearly conceived policy of industrial education. If such a policy were in force, schools planned to meet the city's real needs could be safely established as rapidly as possible. Then, if the efficiency of these schools is carefully studied in relation to the individuals and industries they are intended to serve, a progressively satisfactory scheme of industrial education will result. What, then, should this policy be? A satisfactory policy of industrial education must not only reach a few of that vast majority of young people who now leave school at about fourteen years of age to go to work; it must endeavor to reach them all. Hence it must not only provide pre-vocational education, but education during the early years of employment.

Fortunately, exposition and argument are no longer required in this country to establish the necessity of suitable training for these young people. The social conscience has been aroused to a recognition of the duty of society to its thousands of untrained workers — workers for the vast majority of whom progressive economic efficiency and corresponding satisfaction with life are impossible; and social need — the imperative need of properly trained, efficient workers in an age of industry, together with the acknowledged increasing difficulty and even impotence of industry to train its own workers — these two, the social conscience and the social need, are rapidly bringing the American people to recognize their responsibilities to the great army of industrial workers, without whose mental and moral strength and industrial intelligence and skill social stability and progress are impossible.

As indicated above, two aspects of the problem present themselves for consideration; namely, (a) Education prior to gainful employment, and (b) education accompanying gainful employment.¹

¹ Evening schools for "energizing occupations" for persons eighteen years of age and upward are not here meant. The city has efficient schools of this sort, and they should be extended. The compulsory

Education Prior to Gainful Employment

It has already been pointed out that pre-vocational schools alone could not provide the vocational education required, because they reach only a few of those who need it. It was further noted that they do not aim to train artisans; *i. e.*, they are not trade schools. This last point requires further discussion.

Trades (and other occupations) are "energizing" and "enervating." Enervating occupations are automatic or machine-feeding occupations, in which little or no demand is made on the intelligence of the worker and which, requiring only or chiefly a certain measure of manual dexterity or skill, afford no opportunity for mental development. This work does not promote the development of character; it is repressive, and makes no demands on self-expression. Energizing occupations, on the other hand, do require the exercise of intelligence as well as manual dexterity or skill, and hence afford an opportunity for mental and moral growth.

In modern industry energizing work is decreasing and enervating work is increasing. We are rapidly organizing the working world into a relatively small staff of mental workers directing a huge army of physical workers, and this condition of industry will continue and even tend to become more marked. The significant thing to note is that under such circumstances the minds of the majority of the population in our self-governing democracy are in danger of becoming less and less capable of carrying their full responsibilities as citizens, because they become less and less capable of constructive thought or well-directed effort of any sort while engaged in earning their living.

It is clear that neither public pre-vocational schools nor evening schools for juvenile workers cannot be efficient, and we heartily indorse the City Superintendent's recommendation that they be abolished.

public trade schools ¹ should train for the enervating occupations with their deadening effect on mental and moral development; and as a matter of fact they have never been seriously considered by public school authorities. Public pre-vocational schools for the energizing occupations, as has been pointed out, cannot alone solve the problem of training artisans. Neither can trade schools, for they would be just as selective in their influence as the pre-vocational schools, and hence their graduates would monopolize and possibly overstock the energizing occupations. The public schools of all kinds stand for equality of opportunity, and must try to make that equality of opportunity as *accessible* as possible.

In addition, the ability of public trade schools to turn out efficient artisans is still an open question. But even if they could do this, to be efficient and sufficient in number and variety, they would be enormously expensive. Such schools would not only entail heavy expense for their initial equipment, but they would be subject to the progressive expense of constantly replacing obsolete equipment, just as the factory has to bear that expense. Accordingly, we cannot advocate public trade schools, or pre-vocational schools alone, as a satisfactory policy of industrial education.

Education Accompanying Employment

The satisfactory solution of the problem is found in education accompanying gainful employment — *in the coöperation of industry and education*. This coöperation offers two distinct solutions of our problem — coöperative or part-time vocational schools, and continuation schools.

Coöperative schools are based on an agreement between

¹ By "trade school" is meant a school which in its shops reproduces factory conditions as nearly as possible, and which by full-time attendance of the pupil aims to turn out an artisan competent to enter a trade, or a worker who becomes an artisan after a very short apprenticeship.

the school system and a group of manufacturers, whereby the manufacturers give appropriate shop instruction to groups of apprentices, and the schools the accompanying related theoretical and general instruction. The apprentices receiving this instruction are subdivided so that the two divisions of a group alternate between shop work and school attendance. The apprentices receive the usual apprentice pay for their work. The schools have no practise shops, since the industries themselves provide the shop training required.

Continuation schools are based on an agreement by the employers to release their youthful employees at periods when they can best be spared for a limited time, say a half day or a day altogether per week, for school instruction by the school system.

Either plan implies a recognition of the fact that neither industry alone nor the schools alone can discharge the educational responsibility society must discharge to its young workers, but that both together can and should discharge it, in the interest of industrial and social welfare. As was pointed out above, such recognition will hardly require a propaganda; but to embody this recognition in actual practise may. Both manufacturers and teachers have regarded such plans as desirable but hopeless, because each believed the other would not participate in them. That effective participation is possible, however, is proved by the fact that it is in operation and in successful operation in several cities of the country.

We accordingly recommend that a propaganda be undertaken to bring the school system and the industries together for a thorough study of their common educational problem and for coöperation in the solution of it; that the occupations into which children go as soon as the law permits them to go to work be studied in order that the proper continuation school and coöperative school instruction may be wisely planned; that a comprehensive survey be made showing the number of boys and girls in different occupa-

tions, and the nature of these occupations; and that continuation schools for such boys and girls — and to a limited extent, at least, coöperative schools, too, in the energizing occupations — be established as soon as possible; that if necessary or desirable, legislation similar to the Ohio law for the compulsory education of juvenile workers be secured. This law permits, but does not require, the school authorities to establish day continuation schools, but makes attendance on them compulsory when they are established.

In this endeavor the most difficult problem of all is to find the appropriate continuation school instruction for the automatic worker — the worker in the enervating occupations — for it must counteract the influence of the work rather than supplement it. Much patient investigation and experimentation will be necessary before the right instruction is found. But the need of it is imperative, and it is daily becoming more so.

Finally, we recommend that the investigations required to carry this policy of industrial education into effect, and to judge of and maintain its efficiency, be assigned to the Bureau of Investigation and Appraisal recommended elsewhere in this report.

CHAPTER VI

HIGH SCHOOLS

A STUDY of the public high schools of the United States enables us to formulate the aim of public secondary education as follows: It should lift the general level of intelligence, character, and efficiency — general and vocational — of those who take advantage of the opportunities it offers. Unlike most secondary education abroad, secondary education in this country is not merely for the well-to-do classes, with incidental opportunities for a few of the most gifted of the less fortunate classes. Our secondary education aims to reach the “masses” as well as the “classes.” It does not recognize social segregations; and, so far as its administration is concerned, it is therefore equally accessible to all.

High school education aims to secure for each pupil an appropriate extension of his acquaintance with the resources and problems of our civilization begun in the elementary school, and at the same time to fix and strengthen his command over them, so far as his capacities and the time limits of his education permit.

To this end, education in this country is free in the high school as well as in the elementary school; and the transition from the elementary school to the high school should be as easy and natural as from grade to grade in the elementary school. Indeed, except for the grouping of pupils in separate buildings for convenience of instruction and management, it ought to be impossible to say, in an ideally organized school system — for certain courses, at least — where the elementary school ends and the high school begins.

Remembering that one fundamental object of all Ameri-

can education is to disseminate common interests and a good mutual understanding of them among all the people, it is important that the studies and activities of the high school should cover all the interests of our civilization so far as they can be rendered interesting, intelligible, and accessible to children and youths of high school age. In other words, the scope of high school education should be as broad as human interests.

To conserve, improve, and transmit these interests of society in the most effective way, it is important that each pupil, during the period of adolescence, should be led to self-discovery in respect to his dominant tastes and capacities. He should shape his educational career progressively in harmony with that discovery in order that his work may be most fruitful of results for his own growth in knowledge and power while in school as well as subsequently, and that it may equip him to become a thoughtful and an active member of the society of which he is to be a part. Under other circumstances he can hope for only mediocre achievement both during his school life and thereafter. If he does achieve more, it will be rather in spite of than because of his education.

The pupil's high school education therefore includes a training in choice — primarily, the choice of studies; and to accomplish this end, it must offer a considerable range of elective studies, and insist on persistence and satisfactory achievement in all that the pupil undertakes. To prevent undue narrowness and premature specialization in the pupil's education, the public high school must insist on attention to a considerable variety of studies as well as on concentration of effort in a single field of study.

Every high school, or, in large cities, every system of high schools, must therefore so manage the pupil's work that the final result of his high school education is more comprehensive and thorough in some one field of study (not necessarily in one subject) than in others, and that at the same time the pupil has some acquaintance (at least

a single course) in each of a considerable number of other studies, these other studies lying outside the range of the pupil's specialty.

In vocational high schools the field of concentration should be more comprehensive than in general high schools, and all the studies must be so chosen and taught as not to impair the realization of the dominant aims of those schools.

The conception of a school study or activity implied throughout this discussion is that each study is a portion of valuable, organized, and, so far as it is contained in books, recorded human experience, arranged for purposes of assimilation by the pupil. Unless such a conception of school studies and activities underlies the work of the teachers, the pupil's work is likely to be abstract, formal, and often meaningless to him, and hence unrelated to "life." If this conception prevails among the teachers, the pupil's high school career ought to be progressively and more comprehensively and intensively that part of the pupil's life which makes all the rest of his life significant and valuable (as was said above of his elementary school career). This conception should therefore stimulate the pupil to carry forward for life his own development, and his comprehension of and power to deal with the resources and the problems of our civilization, whether on leaving the secondary school he proceeds to some higher educational institution or at once enters on his life work.

In accordance with the principle that restricted our whole Inquiry to what we could reasonably expect to accomplish, this report deals with only two comprehensive aspects of the city's provision for high school education; namely, the courses of study, general and special; and certain problems of organization and administration.

COURSE OF STUDY

The courses of study have been analyzed and compared with the courses of study in ten other large and repre-

sentative cities of the United States, first, in their general features, and second, in important details. New York City, like the other cities, provides: (a) a general course and general high schools; (b) special courses within the general schools; and (c) specialized schools. Through this analysis of New York City's high school offering and comparison with the offerings of other cities, and in view of the aim of all high school education as formulated, we sought an answer to this fundamental question; namely, Is the high school instruction offered by the city as broad in scope, as continuous and intensive in the several fields of study, as flexible in administration, and as readily available for all who can profit by it, as it should be to meet the individual and social needs of its great and varied population? To this question the answer must be negative, as will appear from the following considerations.

Pupils who enter the high schools may be conveniently classified in two main groups—those who have not decided on their future careers, educational or otherwise, and those who have.

The first group consists of those whose dominant interests and abilities are yet to be revealed, and who can or actually do defer their choice of further education or of a vocation to a later time. For them the general course or school should offer, among other things, the opportunity for self-discovery, training in choice of work (in school and beyond), and progressive adjustment of their school work to individual interests, capacities, ambitions, and needs.

The second group comprises a number of subdivisions: (1) those preparing for college; (2) those preparing for higher technical schools, or for positions of some responsibility in industrial establishments; (3) those who aim at directive positions in commercial or financial houses, or at least at positions above mere clerkships; (4) those seeking preparation for subordinate positions—clerkships of various kinds; (5) those who wish to enter the city training schools for teachers; and (6) those who from the be-

ginning feel that they are unable or do not expect to remain in school long enough to graduate, but seek such preparation as they can get while they remain for the subordinate positions they must take when the time comes for them to leave school. For this entire group, special courses or schools should be so broad in scope, so thorough in instruction, and so accessible that any pupil may find in one or the other of them, without undue expenditure of time and energy, the preparation he requires for as successful a future career, educational or otherwise, as his ability, industry, character, and resources permit.

The courses and schools provided by New York City do not satisfactory meet the needs of any of these groups of high school pupils. Seventeen of the twenty high schools of the city provide the general course; but since these schools are widely scattered, and, further, since nearly every high school in Brooklyn and in Manhattan is a specialized school in one respect or more, the availability and efficacy of the general course for its purpose are greatly diminished. The special courses in general high schools are thus also widely scattered; so are the specialized schools, and these are very few in number.

We accordingly recommend that city-wide investigations be made under the direction of the Bureau of Investigation and Appraisal, to determine the accessibility of present high school opportunities (similar to the investigation made several years ago for the Borough of Brooklyn, by a committee of the High School Teachers' Association) and the extent of high school needs not now provided for; and that according to the results of the investigation the different types of courses or schools be located where required, within walking distance of the homes of the pupils.¹

¹ "To provide for its children the same high school accommodations as are given by Minneapolis, Denver, and Kansas City, New York would need seventy-eight high schools instead of twenty." From an article on a report of the Committee of the High School Teachers' Association of New York City in the *School Review*, Vol. XIX.

Meanwhile, we recommend that the chief aim or purpose of each existing school be more clearly defined, and also that the Board of Education seriously consider paying the transportation expenses of pupils who declare their intention to remain at least a year in a high school which they wish to attend, but from which they are debarred because they cannot bear the expense of travel.

We have studied the details of New York City's high school offering as follows:

(a) The General Course

The single general high school course of study for New York City is even more incongruous than the single elementary school course of study, the unwisdom of which has already been discussed. Such a course rests too much on the discredited and unproved theory that whatever is good education for one set of pupils is good for all. Furthermore, the New York City general course is especially noteworthy for its emphasis on the traditional or conventional subjects — Latin, mathematics, and (with some concessions to modern demands) modern foreign languages are required of all. The controlling aim of the city's high school education is too much that of the scholar, of the exceptional individual, or of the fortunate pupil who has a long educational career ahead of him and may enjoy not only a high school education, but higher education as well. But satisfactory public high school education in this country cannot thus limit its aim. It must be adapted as closely as possible to the individual and social needs of all high school pupils. The general course in New York City is much more rigidly administered than in nine of the other ten cities — whether we compare the total amount of prescribed work required for graduation, or the amount prescribed by years, or the amount prescribed in the various departments.

In addition, we find that in respect to scope or range of

subject-matter the New York City course, in certain important particulars, falls behind every other general course with which it has been compared, and is no more than abreast of the total offering in any of them. The most striking omissions are manual training courses for boys, adequate courses in domestic training and practical arts for girls, and satisfactory commercial courses for both boys and girls. Manual training of the right sort for boys, and domestic training and training in practical arts for girls, should afford the laboratory experience by which both boys and girls attain a real appreciation of the significance of industrial activities and a respect for work and workers; by which the girls realize the significance and value of home making and home keeping as a fundamental requisite in satisfactory living; and by which both boys and girls, in their respective spheres, gain an incipient knowledge of and command over the materials, tools, and processes which make modern industrial life and modern home life possible. Moreover, these courses afford valuable opportunities, not otherwise obtainable, for vocational guidance. The omission of adequate provision for these kinds of training from the general course in most of the city's high schools is, therefore, a serious defect.

We accordingly recommend that as rapidly as possible manual training of the right sort be provided in the first and second years of every general course, and that one year of it be prescribed for graduation for every boy; we recommend, further, that corresponding courses in domestic subjects and in practical arts for girls be provided in the first two years, and that one year's work be prescribed for every girl. Such courses for girls should include, among other things, sewing and cooking, home nursing, domestic laundry work, chemistry of foods, and kindred subjects.

An appreciation of the significance of business activities is also important for a satisfactory understanding of modern civilization. Modern life is no less dependent on commerce than on industry and satisfactory homes. Hence we

recommend also that appropriate commercial courses be included in the general high school course, properly differentiated for boys and girls, as indicated in the section of this report dealing with commercial courses.

We recommend also for every pupil in the general course, as soon as properly equipped teachers can be found to give it, a course in civics and vocational guidance. We have suggested that such a course be called Introductory Social Science, New York City. It should comprise a survey of the industrial and commercial life of the city, with special reference to types of occupations, and should deal also in a non-political and concrete way with the problems of good city government.

For the extension of the scope of the general course in the older subjects, we recommend that intensified or specialized courses in English,¹ science, and mathematics be authorized, and that courses in fine art and specialized courses in music be offered.

An important detail is the intensiveness with which subjects are pursued; *i. e.*, the weekly time allotment for the different subjects of study. Compared with the time allotments in the other cities we find that on the whole New York City's high school offering is pursued less intensively in English, history, civics, and economics, mathematics, natural science, commercial subjects, industrial subjects for both boys and girls, and music, but more intensively in foreign languages, drawing, oral expression (so far as it goes), and physical training.

There is at present no basis for time allotment except the opinion of teachers and school officers; and we accordingly recommend that this matter be studied by the Bureau

¹ In the present general course, English is allotted less time than either Latin, French, or German—and that in a city in which, in 1908, more than half the high school pupils were children of foreign-born fathers. Statistics of the nationalities of the fathers of the 50,902 high school pupils in 1910 are not available, but there is no reason to believe that the proportion of foreign-born parents has diminished.

of Investigation and Appraisal with a view to determining the most satisfactory time allotments for each high school study.

Meanwhile, we share the opinion, widely held, that an allotment of less than four periods of recitation time per week for any study requiring preparation tends to make the work unsatisfactory. From this point of view, the time allotments for the following studies require revision: English after the first year; mathematics in the second year; history in the second, third, and fourth years; science in courses that should include individual laboratory work; music and drawing throughout the four years. We have made a series of recommendations covering the changes that seem to us desirable in time allotment, and certain related changes.¹

The foregoing recommendations concerning the extension of the scope, intensiveness in details, and better adaptation to individual and social requirements point also to the need of greater flexibility in administration. As already stated, the present general course of study is much more rigidly administered in New York City than in the other ten cities. This is true whether we consider the total amount of prescribed work (70.1 per cent of the total number of "points") required for graduation, the amount prescribed by years (exclusive of subjects requiring no preparation—100 per cent the first year,² 75 per cent the second, 50 per cent the third, and 35 per cent the fourth), or by departments of study. As this rigidity is particularly marked the first year, it can hardly be doubted that it is one important cause of the great loss of high school

¹ See Professor Calvin O. Davis's recommendations in another volume of the School Efficiency series (Davis and Ballou).

² Although the printed course of study allows a choice of Latin, German, or French, the pupil *must choose* one of them. Moreover, in administration the nominal choice is actually narrower than this. In one high school, for example, no foreign language except Latin is taught during the first year.

pupils from the first year's class (10,129 and 12,105 in 1910 and 1911, respectively — considerably more than half the total number "discharged" in each year from all the classes — City Superintendent's Thirteenth Annual Report, pp. 105, 106).

As to what should be prescribed, in general, we offer the following considerations: In view of the ultimate aims of public high school education and the great diversity of individual and social needs, we are convinced that in general, and for New York City in particular, the English language and literature and the social sciences should hold a prominent place among the studies required of all pupils; first, in order that a satisfactory command of the English language as a means of oral and written expression may be attained by all, and the guiding and inspiring influence of English literature may be brought to bear on all; second, so that history, government, and economics may lead to an appreciation of the world's worthiest achievements, in government and in social interests generally, and particularly the evolution of democratic government; and of what these have cost not merely in blood and treasure, but especially in personal service. Similarly, because of the fundamental importance of the natural sciences in contemporary civilization, some training in them is essential to all who aspire to be something more than subordinates. Further, because no other study affords the laboratory experience that the right kind of manual training affords for an understanding of the constructive and productive activities by which society maintains itself, and in which thousands of individuals find careers of progressive usefulness and personal satisfaction, some manual training should be accessible to and be prescribed for all boys. In the same way, because commerce parallels industry in our social structure and equally offers a career of usefulness and satisfaction to thousands of individuals who choose wisely, some instruction in commerce¹ should be required

¹ *Not* the clerical arts, however. See below.

of all boys. Again, because home making, or at least the direction of a home, is one of the fundamental occupations of women, and society needs good homes, some instruction in domestic science and practical arts for women should be accessible to and be prescribed for all girls. Health and good recreative habits are essential to all; hence physical education (including games and athletics) should be accessible to all, and some of it should be prescribed for all. Since the wide dissemination and appreciation of the serious pleasures afforded by the fine arts and music are indispensable to the progressive refinement of individuals and of society, instruction in the fine arts, including music, should be accessible to all, and some of it should be prescribed for all.

Accordingly, we hold that the only justifiable prescriptions for all high school pupils are: Courses in English, the social sciences, natural science (including physiology and hygiene), manual training for boys, and the appropriate "practical arts" (including domestic science) for girls, physical training, and fine art (including music). Consequently we cannot approve the present requirement that every pupil who wishes to graduate from the general course in New York City must take three years of foreign language and two years of mathematics. We believe this requirement to be indefensible, and we recommend that it be abolished.

It is obviously undesirable, however, in view of the immaturity of high school pupils, to abandon them to their own devices in choosing their studies. We accordingly recommend that the principal and teachers of each high school formulate a considerable number of suggestive schedules, each incorporating from the total offering of the school the studies prescribed for all; and each in addition concentrating the pupil's work on some one of the principal departments of study—English, foreign languages; history, government, and economics; mathematics; science; and dispersing his attention over all the other de-

partments to the extent of at least one course in as many of them as is consistent with satisfactory annual achievement; and that each pupil, with the advice and consent of his parents and the principal (or teachers designated by him for the purpose), choose one of these schedules or "sub-courses"; and that this choice, once made, should not be lightly nor easily abandoned.

We recommend further that *a diploma* — not merely a certificate — *be granted to any pupil who satisfactorily completes any scheme of studies approved by the principal of the school, whether such scheme embodies all the prescriptions of the State Department of Education or not.* This last recommendation is especially important in view of the fact that pupils should be encouraged to secure the education that is best for them individually and not merely the conventional education determined by the Regents' examinations.

Finally, we recommend that the procedure and results achieved, if these recommendations are carried into effect, and, in any case, the present procedure and results, be studied and reported on by the Bureau of Investigation and Appraisal.

(b) The Special Course and the Special Schools

The special courses in the general high schools and the special schools themselves are obviously intended to meet the needs of the second main group of pupils with its subdivisions referred to above. The important question concerning these courses and schools is: Are they well adapted to the needs of the pupils of this group, and how accessible are they to them?

The general course provides ample opportunities, so far as its scope is concerned, for those pupils who are preparing for college and for the city training schools for teachers; hence so far as this course is accessible to them, these pupils are provided for. The criticisms and recommenda-

tions already made concerning the accessibility of these opportunities apply, however, but need not be repeated here. As commercial courses and commercial high schools are dealt with in the following section, consideration of them will be omitted here.

There remain, then, first, the subdivision of pupils who attend the special high schools either to prepare for higher technical schools or for the minor directive positions in industrial establishments; and second, the pupils whose stay in school is necessarily short. For both these groups the present provision is not satisfactory.

No investigation is needed to show that four manual training schools in New York City are not sufficient to meet the needs of the first group, especially since no manual training is offered in the general course in any part of the city. Hence many boys must either travel long distances, or, if they go to a high school at all, enter a school within walking distance which offers no manual training.

Accordingly, we recommend that as speedily as possible as many manual training high schools be established as the findings of the Bureau of Investigation and Appraisal may show to be needed; meanwhile, that at least one such high school be established in The Bronx and one in Richmond, and that an additional school of this sort be established in Queens. Or, if these schools cannot be speedily secured, at least that manual training courses parallel to the general courses be established in as many schools as possible in each of the five boroughs.

We recommend, further, greater intensiveness in certain studies and an extension of the scope of the instruction — both specified in Professor Davis's recommendations (see above, page 54) — to bring the work into closer harmony with the dominant purposes of these special courses and schools; and that the instruction in the so-called "academic branches" in the manual training courses and schools be differentiated from the instruction in these studies in the general course, and that they be closely correlated to the

practical work. At present the relation of the mathematics, science, and other studies to the practical aims and work of these schools and courses is either not recognized, or, if recognized, not adequately provided for.

For the last group of pupils — those pupils whose stay in the high school is necessarily short — New York City does least of all. These pupils do not want and can make little use of the usual academic high school course, or the four years' course planned for the more fortunate pupils with a longer school career in prospect; and yet such instruction is the only high school instruction available to the majority. What these pupils want is instruction that will enable them to adjust themselves quickly to the minor positions in the business and industrial world, with an equipment that will enable them to command a living wage at the start; and it should be said that such persons are needed in large numbers. In their own interest, however, as many of these pupils as possible should be brought to see the disadvantages of an education as limited as the education they aim at. We recommend therefore that courses broad in outline, but also intensely practical — such, for example, as the technical courses of the Washington Irving High School and certain proposed courses for the Wadleigh High School — be widely established in the general high schools and in the special schools. (The courses just referred to are the only ones in the city that meet directly the needs of the pupils under consideration.) Also, we recommend that similar courses appropriate to the needs of the boys, so far as these needs are already apparent, be provided extensively throughout the city, and that the principals of the schools be authorized to discover the real needs of both boys and girls, and to establish the special courses that are required to meet them; and as before, that the Bureau of Investigation and Appraisal study and report on the results achieved.

From the foregoing it is clear that appropriate extension of the scope of the instruction, accessibility of the instruc-

tion, and flexibility in the administration of the instruction, in view of the enormous size of the city and the great diversity of its population, should receive immediate attention.

(c) Commercial Courses and Commercial High Schools

Commercial courses are offered in eleven of the general high schools and in the two commercial high schools. In the general high schools the courses are three years long, except that one of these schools (Curtis) has a four years' course for boys. Of the two commercial schools, the High School of Commerce (Manhattan) has a four years' course, and the Commercial High School (Brooklyn) has both a three years' and a four years' course.

These courses have been analyzed in order to discover whether and to what extent they meet the need of vocational training for the pupils who attend them. In the general high schools the subject-matter of the commercial courses is largely clerical — bookkeeping, business arithmetic, stenography, and typewriting. This subject-matter has been and evidently is still regarded as instruction in commerce, although it is not really such instruction at all. It can only train office clerks. It gives no insight into and develops no power to deal with the data or materials of commerce — business organization, activities, problems, and opportunities. In the two commercial high schools the clerical subjects are also prominent, but commercial science, commercial foreign languages, and economic subjects are added. Clerical subjects are therefore prominent in all commercial courses in all the schools. There is also comparatively little relation between the “academic work” in these courses and their real purpose; the mathematics, modern languages, and science are those designed to meet the Regents' requirements,¹ which, in turn, are planned

¹ With the possible exception of one course called Commercial English and Correspondence.

to meet the traditional academic or college entrance requirements.

Moreover, there is no satisfactory differentiation between commercial courses for boys and those for girls, especially in the general high schools. The wisdom of such differentiation is seen, however, when we study the occupations open to boys and those open to girls. At the time of our investigation (April, 1912) the secretary of the Permanent Census Board had prepared a report on the occupations of a large number of New York City boys and girls between fourteen and eighteen years of age. Among these, 586 boys and 3,244 girls were stenographers and typewriters; 824 boys and 1,364 girls were bookkeepers. It is true, of course, that to be a good office clerk is a worthy aim, that good office clerks are in demand, and hence that the schools very properly offer the training that office clerks require; but such training must not be confused with training for commerce — for a career in business — as has already been pointed out.

Clerical training at best constitutes only a very small part of training for business, and is not an essential part of it. This estimate of the place and value of clerical training in commercial education is supported by evidence collected by us from business men, through the courtesy of the New York Chamber of Commerce; and similar evidence was afforded by an inquiry made in Boston, 1906, and in Pittsburgh in 1909. Nor should the idea prevail that a start as an office clerk launches a youth on a business career. Sometimes it does, but not because he is a trained office clerk. Investigations into promotions and transfers in business houses show that employees in clerical work are not often promoted by transfer to other departments — the active departments of the business. Employees tend to remain in the departments in which they began; and the limit to advancement in the office force is soon reached.

In general, not more than about 15 per cent of the

employees of business houses in New York and Boston are found in clerical (office) positions, while from 40 per cent to 50 per cent of the entire force are found in the active or competitive side of the business. Further, business men do not now regard the product of the commercial course or school as superior to the product of other courses or schools. True, when they want office clerks they may seek boys and girls who have been trained in such courses or schools, but not often when they want business apprentices. This is because the "business schools" have gained a reputation for training clerks, but not other employees.

At present, therefore, it is true that the non-commercial courses and schools are at least as important as, if not more important than, the commercial courses and schools in furnishing recruits for commercial pursuits. It is true that from all these courses the boys and girls go into commerce, but that fact does not make them commercial courses. A very large proportion of all boys and girls coming from the high schools and colleges go to work in business houses, but they are not on that account commercial schools and colleges. In fact, the effect of commercial education on business efficiency has been so slight up to the present time as to be almost negligible.

Our analysis of New York City's commercial courses and schools accordingly shows that, apart from the emphasis on clerical training, they are academic rather than vocational; and that, so far as they are vocational, as has been said, they emphasize the least important aspect of commercial training — clerical training. Further, the courses in the two commercial high schools are lacking in intensive-ness — too many subjects are pursued simultaneously and with too small time allotments per week. In both these schools also the attempt is made to meet college admission requirements, and this interferes with satisfactory realization of the main purpose these schools should serve — vocational training for business. We have accordingly recommended certain changes in the courses of

these schools, so as to make them conform to their real aims.¹

We have found also that the commercial courses and schools suffer from a scarcity of teachers having commercial experience and an active interest in commercial education. In the Commercial High School (Brooklyn), for example, aside from the teachers of the clerical arts, seventy-eight teachers came from the general list of teachers for the non-vocational high schools. These last can hardly be expected to have the point of view of teachers in vocational high schools, nor can they be expected to develop it rapidly after they enter such schools. Meanwhile, of course, the instruction fails to accomplish its purpose, because the teachers are not trained for that purpose and not infrequently have little sympathy with it.

In view of the present condition of the city's commercial education, it is not strange that we find principals and teachers testifying to the relatively lower grade of commercial pupils in respect to mental power, social grade, personal qualities, and ambitions, as compared with other pupils, particularly in the general high schools. Naturally, the ambitious and able pupil will not take a course that does not challenge his ability nor minister to his ambition. The fault here lies with the educational authorities in failing to plan and carry out commercial courses that will appeal to the ablest and most ambitious, and to their parents as well. For the parents are ambitious, too; many of them naturally fail to see in the commercial training now offered preparation for as profitable and honorable a career in business as in a profession, and hence direct their children away from the commercial course or school to the course or school that leads to college or a profession. Teachers, too, often share this unenlightened attitude toward business as compared with a profession. It is true, of course, that as long as the commercial courses and schools do not train for business careers, all the better pupils are

¹ See Mr. Thompson's volume in this series.

right in avoiding them, and the parents and teachers are right in advising such pupils to attend other courses or schools.

Meanwhile, the attitude of the business world confirms this attitude of teachers and parents. Since business men have not experienced the advantages of commercially well-trained employees, they do not demand commercial training. In general, they state frankly that they make no educational requirements of their employees, although, personal qualities and general intelligence being the same, the better educated are preferred. Yet business men demand that the schools provide the business apprentices they need, and frequently criticize the schools severely for their failure to meet this demand.

The fact is that the schools alone are unable to meet this demand. What is needed is a clear definition of the aims, scope, and methods of the training actually required for business careers as seen by business men who have seriously brought their minds to bear on this problem, and the gradual development of instruction that will provide this equipment by the schools. In other words, the solution of the problem of satisfactory commercial education must be sought in the coöperation of commerce and education, just as the solution of the problem of industrial education is sought in the coöperation of industry and education. Commerce, like industry, must recognize its responsibility to the thousands of young lives devoted to its service.

Accordingly we recommend that a temporary special commission be appointed by the Board of Education to consist of commercial teachers temporarily relieved of their ordinary duties, to investigate together with business men business conditions in relation to commercial education, and to lay the foundation for coöperative relations between commercial courses and schools and commercial houses. That New York City business men are prepared for such coöperation is shown by the action of the Chamber of

Commerce in appointing a special committee on commercial education.

Meanwhile, we recommend a revision of New York City's conception of commercial education so as to secure appropriate emphasis on the larger and more important aspects of business; and that a council of chairmen of commercial departments and commercial high school principals be constituted to study the present results of commercial education under the general direction of the Bureau of Investigation and Appraisal, this council to be recognized as the official agency for studying courses and methods and to make recommendations for improvements to their official superiors. We further recommend that the sexes be segregated, whenever possible, for commercial instruction, and that the instruction be adapted to the needs of each sex; that the Regents' tests for commercial subjects and related academic subjects be abandoned in favor of objective standards drawn from the results of commercial training as shown by the careers of the pupils; that separate eligible lists for all teachers in commercial courses and schools be established; that there be a supervisor of all commercial courses and schools; and finally that as fast as possible coöperation between business houses and commercial courses and schools be established, for the practical as well as the theoretical training of the pupils, and continuation courses for commercial employees be established, similar to the coöperative and continuation courses recommended above (page 43) for industrial employees.

CERTAIN PROBLEMS IN THE ORGANIZATION AND ADMINISTRATION OF NEW YORK CITY HIGH SCHOOLS

The high school principals are, by the by-laws of the Board of Education, the executive heads of their several schools, and are directed to organize and administer them under the direction of the Board of Superintendents. The immediate administrative and supervisory control of the

high school system is vested in two officials — the associate superintendent, who is chairman of the Committee on High Schools of the Board of Superintendents; and one of the district superintendents, who is assigned to the high schools.

This administrative and supervisory system limits the principal's activities to the details of organization, administration, and supervision within his own school. For example: the principal has no voice in the selection or appointment of teachers, but must take the candidates first on the eligible list; the amount of teaching to be done by a teacher or first assistant, after he is appointed, is determined by the standards fixed by the Board of Superintendents; the standard size of recitation sections is likewise fixed by the Board of Superintendents; the courses of study and the syllabi are determined by the Board of Superintendents, with such assistance as that board sees fit to invite, there being no recognized official channel through which principals and teachers make their views known to the Board of Superintendents; and supplies and text-books are ordered by the principals from a list approved by the Board of Superintendents.

Principals may be assisted in the administration of their schools by teachers having the rank of first assistant. First assistants, besides being general administrative officers under the direction of the principals, are, wherever possible, made chairmen of departments of study and as such are in charge of their respective departments.

Our study of high school organization and administration was necessarily limited to five related problems. The first of these concerns the size of recitation sections, and was undertaken in response to a question asked by the Chairman of the Committee on School Inquiry, namely: "What is the largest practical size for classes in high schools?" His object was to secure a basis for estimating the number of teachers required. The size of sections is one of the factors that determine the number of teachers required (and vitally affects the quality of the instruction).

But the amount of teaching and other work done by the two classes of teachers—first assistants (chairmen of departments) and other teachers—also determines the number of teachers required; and since these and other matters of internal economy are subject to the administrative control of the principals and the Board of Superintendents, a study of the size of sections with a view to ultimately determining the number of teachers needed must include a survey of the work of teachers and of the control of the principals and of the Board of Superintendents over the internal organization and administration of the schools.

Accordingly we have studied (a) the size of sections, (b) the work of chairmen of departments, (c) the work of other teachers, (d) administrative control in relation to internal organization, and (e) estimating the number of high school teachers needed.

(a) The Size of Sections

We made typical studies of the size of sections for the entire city in German and in mathematics only, both because it was manifestly impossible with our limited staff to study the size of sections in all subjects, and because this study abundantly illustrates the method to be followed in such an inquiry. The departments of mathematics and German were chosen because they were found in all the high schools, and the time allotments are as nearly uniform as in any. Finally, since our data on the size of sections in mathematics point to the same conclusions as those for German, it will be sufficient to deal only with our findings for sections in German.

We found that the actual size of sections for the city as a whole does not sufficiently approximate a standard; the smallest section consists of five pupils, the largest of sixty-five. Only 51 per cent of the sections are within the limits of the standard fixed by the Board of Superintendents. The results are that 61.75 per cent of the sections in the

first term conform to the standard — thirty to forty pupils; and only 29.6 per cent of the sections in other terms conform to the standard — thirty to thirty-five pupils. Similar conditions prevail in individual schools.

We found, further, that 93.75 per cent of the first-term sections with less than thirty pupils were avoidable through a different distribution of pupils; and 94.74 per cent of the first-term sections having more than forty pupils were avoidable through a different distribution of pupils and the employment of more teachers. Similar but even more striking results were obtained from studying the size of sections in second to eighth terms inclusive. To show the importance and the method of such a study of the size of sections for administrative and supervisory purposes, we made a detailed study of the organization of sections, by terms, in three selected high schools.

Our principal findings as to size of sections are: that large sections are due to the present official standard size, which we think is too large,¹ and that the lack of necessary teachers is due, in a few cases, to bad distribution of pupils by principals; and that small sections are due to the inevitable small number of pupils in the upper terms of work, and in a few cases to bad distribution of pupils by the principals. We recommend that a provisional standard size of section for all terms be adopted — to be tested in practise — and that this standard be thirty pupils; that enough teachers be employed to enable principals to maintain sections that closely approximate the standard size; and that a careful study of program-making be undertaken by the principals, in order that unnecessary over-size sections may be reduced, and unnecessary undersize sections may be avoided.

¹ There is at present no basis for this assertion except general educational opinion.

(b) The Work of Chairmen of Departments

Chairmen are not only the administrative and supervisory heads of their respective departments; they are teachers and assistants to principals, and they are also assigned to study-hall supervision. We find that 75 per cent of the chairmen of the departments of English, Latin, French and German, mathematics, biology, chemistry, physics, and history, in the larger high schools¹ are teaching more than fifteen periods per week—the maximum fixed for chairmen by the Board of Superintendents.² These chairmen have only 58.26 per cent of the time theoretically reserved for duties other than teaching, and this proportion is reduced to 40.5 per cent by the time required in these schools for study-hall supervision. In the smaller schools 86.9 per cent of the chairmen are teaching more than the maximum of eighteen periods for smaller schools, and have actually only about one-third of the time set apart for other assigned duties, and 30 per cent of them have less than one-fifth of the time. In view of the other important duties devolving on chairmen in addition to teaching, we recommend that every effort be made to conform to the standard assignment of teaching. The great size of the larger high schools entails an amount of administrative work which the principals cannot carry alone. The principals, accordingly, necessarily delegate to first assistants numerous and varied administrative duties specified in the report. When a first assistant is also chairman of a department, it is clear that this assignment still further reduces the time of a chairman theoretically set apart for duties other than teaching.

In most of the city high schools the administrative and supervisory details devolving on the chairmen of departments are equal in amount to the corresponding responsi-

¹ Schools with more than 1,000 pupils.

² Twenty-five periods of work per week are recognized as a satisfactory assignment for high school teachers.

bilities of most high school principals in other cities of the country. We agree entirely with the chairmen of departments that their most important duties are the organization and supervision of the work of their respective departments. For these duties they now have too little time. They are devoting more time to teaching than the maximum amount fixed by the Board of Superintendents, and their other assigned duties take most of the remaining time.

Our study of the administrative and other duties assigned to chairmen shows that some of them could be performed by competent clerks, while others of them could not. We recommend that clerical and administrative functions be clearly distinguished; that clerical functions be assigned to competent clerks and not to teachers, and that administrative functions be assigned to the teaching staff, including the chairmen; and that the principal have at his disposal a sufficient amount of the time of the teaching staff for this purpose. Other recommendations concerning the work of chairmen are given in Professor Ballou's portion of the volume by Davis and Ballou in this series.

(c) The Work of Other Teachers

Our study of the amount of work of other teachers was necessarily limited to a few departments — English, German, mathematics, biology, and history; but this study was comprehensive enough to cover essential and typical details. We found, among other things, that if to teaching we add study-hall supervision, only about 2 per cent of these teachers have less than twenty periods of assigned work, and more than 41 per cent of them have more than twenty-five periods. Possibly some of these teachers are teaching too little, and some too much. We recommend an inquiry into this matter. In addition to teaching and study-hall supervision, more than 50 per cent of these teachers have other assigned work — clerical and administrative. Teach-

ers cannot be expected to do clerical work as well as clerks, nor should they be expected to do such work in addition to a full day's teaching and other work. On the other hand, clerks cannot do administrative work requiring the knowledge and experience of teachers.

We therefore recommend, as before, that clerical and administrative duties now assigned to teachers be clearly distinguished; that a sufficient number of competent clerks be furnished to each high school to do the clerical work; and that each principal have at his disposal a sufficient amount of the time of his teaching staff for the administrative duties, in accordance with the estimates given by Professor Ballou.

The foregoing recommendations cover immediate measures for the removal or at least the amelioration of certain obstacles to efficiency. We also recommend that this whole matter of the work of teachers and chairmen be studied further and reported on by the Bureau of Investigation and Appraisal, in order that present conditions may be fully realized and the effect of our recommendations, if adopted, may be known. In this way a solid foundation can be laid for the progressive maintenance of satisfactory working conditions in the schools.

(d) Administrative Control

It remains to determine the responsibility and authority of the principals and of the Department of Education (Board of Education and Board of Superintendents) for the size of sections and the work of chairmen and other teachers. It has already been stated that the principal does not alone control the organization of his school. The standard size of sections and the standard amount of work to be assigned to teachers including chairmen are fixed by the Board of Superintendents; and the Department of Education, or the Board of Education, or the Board of Superintendents, is charged with fixing the program

(course) of study, the size of the school, the size and number of class rooms, and the number of teachers — all of which profoundly affect the organization of the school in respect to size of section and number of teachers available.

Since the principals are directly responsible for the daily programs involving the number and size of sections and the amount of work to be assigned to teachers, we recommend that a thorough study of the making of daily programs be undertaken by the principals.

In view of the responsibilities of the Department of Education, we recommend that an investigation be undertaken to determine the effect of a number of different "courses" within a school and of elective studies on the number and size of sections and on the amount of teaching required to care for a given number of pupils; and into time allotments for different studies, taking into account the necessity of adjusting these time allotments to a satisfactory daily program.

We share the practically universal opinion of high school principals that New York City high schools are in most cases so large that the principal cannot satisfactorily discharge his normal responsibilities to pupils, teachers, and parents, and that the unification of his school as to educational policy and results is very difficult, if not impossible; also that, for various reasons,¹ the system of high school "annexes" is unsatisfactory. We recommend that high schools hereafter established be limited to about 1,500 pupils, and that separate high schools of different types take their places.

Since the size of sections is determined to some extent by the number and size of class rooms, we recommend that the seating capacity of class rooms be limited to the maximum size of sections; that in new buildings, and in buildings now in use, wherever practicable, study halls seating

¹ These reasons are specified in Ballou's portion of the volume by Davis and Ballou in this series.

125 to 150 pupils be provided so that less time of teachers shall be required for study-hall supervision and regular class rooms may be released for recitation purposes; and that more class rooms (buildings) be provided.

In view of the present unsatisfactory method of increasing or decreasing the number of teachers in a department, we recommend that a reorganization blank be adopted, the nature of which is indicated in the report, and which provides the necessary data concerning the number and size of sections and the amount of teaching done and to be done.

(e) Estimating the Number of High School Teachers Needed

If the standard size of section were fixed, and if the size of each section necessarily conformed closely to the standard; if class rooms were adequate in number, and were so planned as to fit the standard size of section; and if teachers had no other work to do than to teach, the problem of estimating the number of teachers needed would be simple. As we have seen, none of these conditions hold in practise, and hence the problem is decidedly complex. It is clear also, from what has been said, that as high school conditions and needs are very different from elementary school conditions and needs, estimating the number of high school teachers needed is a very different problem from estimating the number of elementary school teachers needed and must be treated as a separate problem.

We found that the blank used in 1911 for estimating the need of high school teachers was unsatisfactory, in several particulars specified in the report made to the Committee on School Inquiry; and, in general, because it furnished only the most general information concerning the organization of each high school, and registered the estimate of the principal concerning his need of additional teachers, without giving the evidence on which his estimate is based. We accordingly recommend the use of a new blank, given

in the report to the Committee, the purpose of which is to base the estimated need of teachers on recorded facts concerning past experience, present organization, and future needs, all in view of the educational interests of the children; further, that this blank be used for a sufficient length of time to test its value, and that it be revised from time to time, as experience may determine, but always with a view to providing more satisfactorily the information needed.

Our conference with high school principals on the proposed blank showed that there was no little fear on their part that, notwithstanding the statement of their real needs which the blank requires, their estimates would be subject to reductions, inasmuch as the tendency to reduce estimates seems to be pretty well fixed in all supervisory and financial authorities. We are confident, however, that if it be appreciated by all concerned that the estimates are as nearly accurate as the most careful grouping of facts can make them, the danger feared by the principals will not be realized.

CHAPTER VII

THE SYSTEM OF GENERAL SUPERVISION AND THE BOARD OF EXAMINERS

THE schools of the city, like the schools of other cities, are, or should be, subject to four principal kinds of control — legislative, administrative, supervisory, and inspectorial. Legislative control is exercised chiefly by the state through its legislature. Administrative control should be exercised by the Board of Education and other lay bodies and officials, and also by members of the supervisory staff. So far as it is exercised by the Board of Education and other lay bodies and officials, it is non-technical, directive, and general. Supervisory control is professional or technical; it should be characterized throughout by constructive effort in relation to the aims, means, methods, and results of education, including helpful service to subordinates; it should be exercised by superintendents, directors, and principals, under conditions that guarantee responsibility and freedom of action. Inspectorial control, like supervisory control, is necessarily based on technical knowledge and skill, but its aim is impersonal objective measurement of educational results. It is or should be regulative for the other forms of control. It is important to distinguish clearly between these different kinds of control in order to determine the powers and duties of the different agencies responsible for them, and their relation to each other — their independence and interdependence. The failure to do so is responsible, to a large extent, for the lack of effective correlation between these controlling agencies in New York City. Legislative control and administrative control (so far as they are exercised by the

Board of Education) are discussed below. We are here concerned with supervisory and inspectorial control, and administrative control so far as it belongs to the supervisory staff.

The revised charter of 1901, which went into effect so far as the school system is concerned in 1902, remains in all essential respects the source of the city's system of school control. The principle which it incorporated into the school system is *unification* through the centralization of administrative and supervisory authority in a central Board of Education, the Board of Superintendents, and the Board of Examiners. In respect to supervision, the charter evidently contemplates a series of ranking officers from the City Superintendent of Schools and the Board of Superintendents to the associate city superintendents as division superintendents,¹ to the district superintendents, to the directors of special branches, to the principals, to the teachers.

We find that under the existing organization and procedure the schools must respond to a maximum amount of administrative control, and are influenced by a minimum amount of competent expert supervision. Centralization of authority has been effective in bringing about the greatly needed unification of the school system. But as a permanent device and alone it fails to stimulate the initiative and coöperation indispensable to effective supervisory control. At present "*there is a striking lack of consciousness within the school system of the radical difference between merely keeping the schools in operation and keeping the schools in operation so as to produce tangible results of high value.*"

¹ The forty-six supervisory districts are grouped in divisions and an associate superintendent is assigned to such a group of districts as division superintendent.

THE PRINCIPALS

The provision for supervision within the elementary schools would be adequate, provided the supervisory staff — principals, heads of departments, and assistants not teaching — were competent and free to devote themselves chiefly to their functions as supervisory officers. It has been pointed out already that competent supervision by the principals is not now generally secured.

The essential conditions of good supervision are not provided for by the charter and the by-laws of the Board of Education. The by-laws make the principals "the responsible administrative heads" of their schools, although under certain of the by-laws they are potentially the supervisory heads of their schools. Practically, however, all of the constructive features of their work are under the immediate control of superior supervisory officers, and the greater part of their time and energy is consumed by clerical and administrative duties. As long as this is true, they cannot effectively perform their duties as supervisors. Competent supervision by the principals requires, first of all, a differentiation of their present duties so that they will be relieved of the burden of their clerical duties, and actively encouraged to subordinate their administrative duties to their supervisory functions. Incidentally, it should be noted that long service — and that in New York City — rather than potential supervisory capacity is given undue weight in determining the eligibility and appointment of principals. Such appointments conventionalize the work of the principals in accordance with New York educational procedure, and the city fails to profit by the infusion of the best professional ideals and practises of other communities.

At present there are two kinds of principals in the service: First, those who are competent to act as efficient supervisors and who, even under existing conditions, make a conscious effort to subordinate their other duties to help-

ful supervision; and second, those who are content to limit themselves to mere routine. Good supervision by the principals will not prevail until there is a decided increase in the first kind of principals, and until the superior educational authorities more generally secure and retain in office such principals only and give them larger professional freedom in the conduct of their schools.

THE DISTRICT SUPERINTENDENTS

There are twenty-six district superintendents. More than half of them in 1911 were those who automatically became supervisory officers by the provisions of the revised charter. Twenty-three of them are assigned to the forty-six supervisory districts—two districts to each superintendent—into which the city is divided; one to high schools; one to evening schools; and one to vacation schools, recreation centers, and playgrounds; and each of them is a member of the local school boards for his districts.

According to the general plan of organization, the district superintendents were to be supervisory officers of great importance, and they were to be the connecting link between the City Superintendent and Board of Superintendents and the principals, teachers, and the people. Each district superintendent was to be “absolutely responsible for the scholastic welfare of each school in his territory.”

But we find that this theory has not been realized in practise, owing to the great size of most of the supervisory districts, which makes effective supervision by the district superintendent impossible; to the absence of high standards of qualifications and service for the selection and retention in office of district superintendents; to devotion on their own part chiefly to routine administrative duties, partly from necessity and partly from choice; and to the

absence of any clearly defined and officially recognized opportunity to participate in the initiation and development of educational policies.

As in the case of the principals, there are district superintendents who, in spite of these obstacles to their efficiency, endeavor to live up to the conception of their office contemplated by the plan of organization; but, in general, it must be said that the usefulness of the district superintendents, like that of the principals, has not been fully realised. And it will not be realised until many of their supervisory functions are transferred to the principals; until the existing method of choosing district superintendents does not confine their selection too narrowly to those whose training and experience have been limited to New York City; until a definite and high standard for the selection of district superintendents and for their retention in office is adopted; and until the relation between the district superintendents and their superior officers is so amended that initiative and responsibility in matters of fundamental educational importance are officially provided for and actively encouraged.

DIRECTORS AND ASSISTANT DIRECTORS OF SPECIAL BRANCHES

We could not make the necessary studies to pass judgment on the supervision and the results achieved by the directors and assistant directors of special branches. The evidence we collected, however, justifies the assertion that, except for the kindergarten, the number of directors and assistant directors is sufficient to secure proper supervision of the special branches; that the responsibility of the directors for the scope and methods of their several subjects should be recognized, and the relation of the directors to the principals should be more clearly defined; that special teachers in certain of the special subjects should be unnecessary; and that to promote the further development

of the kindergarten¹ adequate supervision should be provided for by the appointment of additional assistant directors, and by making elementary school principals responsible for the supervision of the kindergartens to the same degree as for the other classes.

THE CITY SUPERINTENDENT AND THE BOARD OF SUPERINTENDENTS

The City Superintendent of Schools is, in accordance with the charter and the general state school laws, the chief educational officer of the city. Through him the educational policies approved by the Board of Education are embodied in the practise of the schools. He is to be the unifying influence through whom the various parts of the educational organization are to work together effectively for the realization of the purposes for which the schools exist.

While the enumeration given in the charter fairly represents the scope of the powers and duties of the City Superintendent of Schools, it does not represent the extent and significance of his influence. Whatever powers and duties statutes and regulations may confer on him and also whatever limitations they may impose, his real power and influence will be determined by his wisdom, tact, and force of character.

The present City Superintendent is a man of commanding personality, of clear vision, of great industry, and of unswerving devotion to the educational interests of the city. His influence is correspondingly great. The city of New York owes to him more than to any other person or group of persons the educational progress its schools have made since the consolidation, and this progress, in spite of the defects we have pointed out, is very great.

¹ The kindergarten is not, of course, a "special branch"; but from the standpoint of supervisory policy it is included here, for convenience.

Without him it is difficult to see how such progress could have been made.

By virtue of his office, with its comprehensive and varied responsibilities, it is natural that criticism of the school system, as a whole or in details, should be directed against the City Superintendent and the two boards of which he is chairman — the Board of Superintendents and the Board of Examiners. And, in fact, such criticism whether just or unjust, whether from within the school system or from without, is insistent and persistent. The criticisms brought to our attention not infrequently exhibited strong personal feeling, even animosity. They were important for us only when they concerned real defects in the organization of the supervisory system and the efficiency of the staff. Criticisms from without the school systems were, on the whole, similar to those from within, and need not be separately considered.

Some of the criticisms were really complaints. They came from dissatisfied individuals within or without the school system, who charged the City Superintendent with unfair discrimination against themselves or others in the matter of appointments, transfers, or promotions. It is only fair to say that, so far as most of the individuals were concerned who brought such criticisms to our office, only one conclusion is possible; namely, that the City Superintendent was justified in his discrimination against such individuals, and the city is to be congratulated on having a superintendent who unhesitatingly incurs the antagonism of such persons because he defeats their endeavor to secure appointments or promotions at the expense of the city's educational interests.

On the other hand, some of the criticisms were of another sort, and came from a very different class of individuals from those just referred to. They were intelligent lay and professional criticisms concerning defects in administration or supervision or both. More or less impersonal in their character, they were aimed not only at the

Superintendent and the supervisory staff, but also at the system of supervision in which they were all involved. It goes without saying that the most useful criticism of all is of this sort from within the school system — criticism based on the information and experience of the more intelligent, disinterested, and judicially minded members of the teaching and supervisory staff. Many such persons — teachers, principals, and superintendents — were willing individually to offer unbiased and well-supported evidence concerning the methods and effectiveness of the present supervisory system, from the City Superintendent's office down. Unfortunately, however, they were in nearly all cases expressly unwilling to be known as the individuals who gave the information and made the criticisms referred to. They almost invariably alleged that to be known would endanger their professional standing and advancement.

This attitude may be wholly groundless, but it is widespread. From our point of view, whether founded or unfounded, it indicates a serious obstruction to the professional growth and efficiency of all concerned. Such an attitude paralyzes coöperative effort in the teaching and supervisory force; and *coöperation under leadership is essential to good supervision*. Leadership there is — the City Superintendent is an unquestioned leader in every detail of the vast interests over which he presides — but coöperation, especially collective coöperation, is not invited or encouraged in such a way as to secure the free and fearless discussion of mutual professional interests in which individual responsibility for views expressed and measures advocated is willingly assumed. How to secure such coöperation is one of the most important problems which the City Superintendent faces and with which we have to deal. At present competent criticism is either intentionally or unintentionally discouraged; and unintelligent and carping criticism is allowed to undermine professional interest and enthusiasm within the school system, and public confidence without. Our proposal for a Supervisory Council offered

below is intended to suggest a way out of the present untoward situation.

The chief difficulty seems to be due to the failure to distinguish between administrative control and supervisory control. So far as the City Superintendent is an administrative officer, his powers should be broad and direct. In several respects his authority should be enlarged; and this is particularly true in respect to many activities now under the control of the Board of Superintendents. As a supervisory officer he should be the executive officer and agent of the Board of Education and of the supervisory and teaching staff.

But the scope and method of his work as a supervisory officer need to be studied far more thoroughly than was possible within the time and with the resources at our disposal. Consequently we recommend that the Bureau of Investigation and Appraisal make such a study, with a view to defining the supervisory functions of the City Superintendent, so as to secure for the schools the leadership of the Superintendent in relation to the supervisory staff, while broadening and strengthening his functions as an administrative officer; and that meanwhile immediate steps be taken for the establishment of a Supervisory Council through which the necessary coöperation of teachers, principals, and other supervisory officers with the Superintendent's office may be officially provided for. Both these recommendations are considered in some detail in the report to the Committee on School Inquiry (see the volume by Professor E. C. Elliott in this series), and they are referred to again below.

THE BOARD OF SUPERINTENDENTS

The Board of Superintendents consists of the eight associate superintendents and the City Superintendent, who is chairman of the board. The revised charter places the initiative in all educational matters in the hands of the Board of

Superintendents. We find that the Board of Superintendents has become bureaucratic, and hence non-progressive. When first constituted, it may have been the best instrumentality available to bring about homogeneity and coherence — unity of aims and effort — within the school system. But it does not now represent, either as to constitution, organization, or function, a really serviceable agency for the initiation or development of educational policies, or for professional growth on the part of supervisors, principals, or teachers.

The assignment of the associate superintendents as division superintendents to groups of districts has made the district superintendents directly responsible to an associate superintendent, who is in turn responsible for the educational welfare of his section of the city. This assignment of the associate superintendents was intended to secure direct representation in the Board of Superintendents for the schools of each division. This intention has not been realized, however, because the routine administrative duties of the associate superintendents as members of the Board of Superintendents prevent them from being real supervisory officers for their divisions.

At present the Board of Superintendents attempts to exercise the three forms of control — administrative, supervisory, and inspectorial. In small school systems these forms of control are not independent; but the magnitude and complexity of the school system of New York City necessitate specialization in order to secure efficient service.

For the exercise of administrative control the Board of Superintendents is unnecessarily complicated in organization and methods of procedure. The administrative and executive functions of the board as enumerated by the charter and in the by-laws of the Board of Education could be more promptly, economically, and effectively discharged under the direction of a single officer. Some of the principal powers of the board as enumerated in the by-laws

properly fall within the jurisdiction of the City Superintendent; some of them should belong to a representative body of supervisors and teachers; (one item cannot literally be carried out by a board;) and one important item raises the issue as to whether district superintendents and directors should not be nominated from an eligible list, as are teachers and principals.

As supervisory officers the members of the Board of Superintendents are too far removed from the actual conditions confronting teachers, schools, and neighborhoods to render the kinds of service most needed.

For inspectorial control, *i. e.*, for the proper inspection and appraisal of the work of the schools, training and capacity radically different from those of administrative officers are required, and the work of the Board of Superintendents is at present almost wholly devoted to matters of administrative routine.

Accordingly, we recommend that steps be taken to secure the necessary legislation to abolish the Board of Superintendents and the position of associate city superintendent; and that meanwhile a study be made by the Bureau of Investigation and Appraisal of the powers and duties now belonging to the City Superintendent, the Board of Superintendents, and to the associate city superintendents, with a view to securing a more economical and efficient distribution of the necessary administrative powers among the City Superintendent, the proposed Supervisory Council, the district superintendents, and the principals.

Further, because at present the extent to which the participation of members of the teaching and supervisory staff in the making of educational policies is wholly within the personal choice of the City Superintendent or the Board of Superintendents, and real progress within the school system demands that such participation be officially — that is, legally — provided for, we recommend that steps be taken to establish a Supervisory Council. This council should consist of the City Superintendent, all the district

superintendents, and a number of selected directors, principals of elementary schools, principals of high schools, the principals of the training schools, and representatives of the teaching staff in the different types and grades of schools; and that this Supervisory Council possess general powers of initiation and direction with respect to programs of study and all other matters relating to the aims, means, and methods of instruction.

Further, because the fundamental importance of the inspectorial form of control has been recognized only to a very limited extent and the school system at present suffers from a lack of definite and detailed knowledge of its own working and its own cost; because, even where recognized, officials responsible for administrative or supervisory duty now appraise their own performances; because investigations to ascertain the facts needed for reaching satisfactory conclusions concerning educational results, and carefully directed experiments for the confirmation or refutation of educational opinion within and without the school system, are not now made at all, we recommend that there be established as an integral part of the school control a Bureau of Investigation and Appraisal. This bureau should be in charge of a chief or superintendent who is directly responsible to the Board of Education, and should be so organized as to enable it to serve as the central agency for gathering and interpreting statistical and other data with reference to the schools, and for making such investigations as are necessary for the internal development and extension of the work of the school system. Many illustrations of the kind of investigations and experiments required have already been given.

THE BOARD OF EXAMINERS

The Board of Examiners consists of the City Superintendent, who is chairman of the board, and four persons nominated by him and approved by the Board of Education. Our study of the work of the Board of Examiners

has caused us to reach the conclusion that this board has performed its duties in a decidedly successful manner. Its responsibilities are very great. While some unfit or partially unfit individuals have been declared eligible for appointment to service as teachers, and some fit individuals have not, nevertheless, considering the many and varied inherent difficulties of determining beforehand the fitness of individuals for effective service as teachers, and also the constant pressure from the many organized interests in the city to utilize appointments to teaching positions for narrow or selfish purposes, the courage, integrity, and skill of the Board of Examiners deserve general commendation.

So far as the written examinations in the so-called professional subjects are concerned (history and principles of education, psychology, general method, methods of teaching special subjects, and school management), it is apparent that while these examinations fairly test the possession of systematized pedagogical knowledge, and the conditions and demands of school-room practise, there has not been a conscious effort to bring together the standards formulated by the Board of Examiners and the standards by which the success or failure of a teacher is determined by the supervisory staff. While, to some extent, this gap is lessened by the oral examinations, and in some instances by the practical tests, this gap will exist as long as the members of the Board of Examiners are, in the conduct of their work, completely isolated from the conditions and requirements of class-room teaching.

We find, further, that the range and variety of examinations now necessary are so large as to necessitate an increase in the present membership of the board. A larger membership would permit further specialization of effort on the part of the members, and this is desirable for the maintenance of a high standard of efficiency.

We accordingly recommend that the Board of Examiners be reorganized so as to consist of nine members—including the City Superintendent of Schools, to insure

the necessary correlation between the actual work of the schools and the Board of Examiners; that the eight appointed members be divided into four equal groups; and that the members of each group be relieved, in turn, of their immediate duties as examiners, and assigned to such work as would bring them into direct contact with the teaching staff of New York City or elsewhere.

This recommendation aims to secure six active members of the board during each year; to inhibit the recognized tendency of any examining body to become isolated from the situation under their control; and to permit the members of the board to study the needs of the schools in order to bring about a more effective relation between the formal examinations for licensing and the performances within the schools.

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CHAPTER VIII

THE BOARD OF EDUCATION AND THE LOCAL SCHOOL BOARDS

THE BOARD OF EDUCATION

BRIEFLY stated, the Board of Education is responsible to the people for the general direction and control of an efficient public school system large enough and diversified enough to meet the educational needs of the city. This responsibility is placed on it by the charter and the general education law of the state.

To discharge its responsibility satisfactorily, the legal functions of the Board of Education should be clearly defined; the members of the board should have a clear conception of the board's functions, including the relation of those functions to the functions of its staff of employees — business and educational; and its organization and procedure should be such as to enable it to discharge all its functions promptly, *i. e.*, without unnecessary expenditure of time and effort. Further, it should insist unequivocally on discharging the functions which undoubtedly belong to it, and it should render to the people a lucid and an adequate account of its stewardship. To organize and direct its policies and procedure the board should have a general manager or executive whose authority is commensurate with his responsibility for the work to be done.

We find that none of these conditions of satisfactory school administration by the Board of Education are adequately met; and that, in consequence, in addition to the natural difficulties which face the Board of Education in the performance of its duties, unnecessary or artificial

difficulties exist, which make its enormous task almost impossible of accomplishment. The present condition of the board's affairs is due to an accumulation of ill-considered laws, and a service-defeating division of power and responsibility, which seriously endanger the educational welfare of the city. A reorganization of the present system of administration, including the financing of the school system, is accordingly imperative.

The revised charter (1061) declares that "there shall be in the city of New York as constituted by this act a Board of Education which shall have the management and control of the public school system of the city, subject to the general statutes of the state relating to public instruction and to the provisions of this act. . . . For the purposes of this chapter the Board of Education shall possess the powers and privileges of a corporation" (1062). "There shall be the following administrative departments in said city. . . . Department of Education" (96).

Is the board thus constituted a separate corporation or a department of the city government? The courts and the legislatures have repeatedly held that the "common school system is an institution of the state and not of any particular locality therein," and its officers are not local officers, but officers of the state system even when those officers are appointed by the mayor of a city. "Education is not a city, village, county, or town business. It is a matter belonging to the state government." "The city cannot rent, build, or buy a schoolhouse. It cannot employ or discharge a teacher. . . . All this results from the settled policy of the state from an early date to divorce the business of public education from all other municipal interests or business, and to take charge of it as a peculiar and separate function through agents of its own selection and immediately subject and responsive to its own control. . . . It is difficult to see how the mere listing of the Board of Education among city departments makes any change in its corporate powers, duties, or liabilities. . . .

It is still the sole representative of the school system, with exclusive powers to control and administer all school property and school funds."

Further, the State Commissioner of Education, according to the Education Law of 1910, is the chief executive officer of the state system of education. He has authority to decide appeals brought to him from official acts of boards of education or school officers in cities or union free school districts.

All this is in entire accord with the growing tendency in other states as well as New York to separate public education from all other municipal functions and entrust it to independent corporate agencies of its own creation.

We find that the policy incorporated in the law and in court decisions cited in the report from which the foregoing quotations are taken is not now carried out either in its spirit or its letter. A counter-conception holds; namely, that the school system is essentially a subordinate city department. It has gradually come about that the Board of Education is not "the sole representative of the school system, with exclusive powers to control, manage, and administer all school property and school funds."

A conspicuous illustration (one of many) of the difficulty of conducting the business of the school system according to present methods, and the legal uncertainty of present procedure, given in detail in the report to the Committee on School Inquiry (see Professor Moore's volume in this series) is found in the making of leases for school premises.

The Comptroller's staff may and does suggest changes in the estimates submitted by the Finance Committee of the Board of Education; the Board of Estimate and Apportionment may and does modify them; and the Board of Aldermen may then reduce them. Salary schedules for each division in the offices of the Board of Education are fixed, and the number of employees allowed is specified by the fiscal departments of the city. When a janitor is to

be employed to care for a building, the Board of Education must ask the Board of Estimate and Apportionment to recommend that the Board of Aldermen fix his salary.

The Board of Education has increasingly for some time felt the tendency of the Board of Estimate toward the centralization of municipal activities. The board is now hampered and hindered by the continual necessity of asking the Board of Estimate to transfer money from one fund to another in order that it may meet the necessary readjustments that the school service requires.

Such administration takes the control of public education away from the Board of Education, and transfers it to other city boards and bodies. It leads to interference with the educational economy of the school system by municipal officers and bodies not responsible for its management. This departure from the settled policy of the state in keeping the work of public education distinct from all other municipal interests and business would seem to require, as the Court of Appeals has said, express warrant in law "in language so clear that no doubt would arise as to this change of policy."

We accordingly recommend that the laws governing the Department of Education be codified; that the Board of Education employ a legal adviser of its own; that immediate steps be taken to secure from the courts an interpretation of such parts of the law as are not clear in order to fix definitely the responsibility of the Board of Education and all municipal boards and bodies for the administration of school affairs; and that the law be strictly followed.

In the matter of appropriations for school purposes, in general, we find that shortage of funds and insufficient control of funds in the hands of the Board of Education have affected every department of the school system, and hence that both the more careful preparation of estimates and the more careful consideration of them when made are required. Somehow or other, the Board of Education must

educate the children. It is conducting an enterprise whose expansion and changing conditions are not subject to its volition. Its territory is so vast and changes within it are so rapid and so continuous that the board must have a large degree of freedom as to the size of its funds and the control of its funds in order to meet its needs and make the readjustments required. This freedom it does not now possess. Estimates for school expenditures, however carefully based on data derived from past experience—as they should be—must therefore provide for a margin to cover the internal changes and the growth that cannot be foretold. But if the most careful statement of its needs that can be made is submitted by the Board of Education, and if this statement receives equally careful consideration by the tax-appropriating bodies, the inevitable friction between the tax-appropriating and the tax-consuming bodies will be reduced to the minimum.

We find, further, that the methods of accounting to the fiscal authorities now employed by the Board of Education require modification. Proper accounting is, of course, indispensable; but uniformity of accounting for different departments does not sufficiently take into account the great difference between the business to be transacted by the different departments. The present methods interfere too greatly with the prompt and effective discharge of educational business. Methods of advantage in other departments are almost inevitably disadvantageous in the Department of Education. In any event they should be introduced only after a thorough study of them has been made, and their practicability and effectiveness in promoting the transaction of the business of the Board of Education have been made clear.

The foregoing recommendations and suggestions are intended to provide immediate relief from the present situation. But for the permanent and progressive development of the school system, the city will need new and important legislation. The many external hindrances to the efficiency

of the school system can be removed only by making the school system independent of the city government. Education is not a function of society subordinate to government; it is a coördinate function.

Other cities and states have recognized the validity of this principle and have acted on it. For example: In Pennsylvania the school code which went into effect January 1, 1912, makes the School Board of Philadelphia (and other cities of the state) an independent taxing body, and gives it (and them) authority to make loans; the board controls its own funds, and is accountable directly to the people. In Indianapolis the Board of School Commissioners is a separate and distinct corporation. It has the power to make its own levies of tax up to a maximum of sixty-seven cents on the hundred dollars of taxables, and the statutes also give the board a bond-issuing power. The municipal government of a city, town, or village in Missouri has nothing whatever to do with school control. The boards of education of St. Louis and Kansas City are therefore independent bodies with tax-levying powers of their own, and full authority under the state law to do all things necessary to accomplish the purposes for which the schools exist.

We accordingly recommend that the established policy of New York State, "to separate public education and the control and management of the schools from all other municipal interests and business," be carried out by making the Board of Education independent of the city government and giving it the power to determine the amount of money needed for school purposes.

Further, legislation is needed to secure a new kind of Board of Education. The present board is much too large. The trend in American cities in recent years has been toward small boards of education. American cities have come to see that a large city must have a small board. The large board lacks unity, a clear conception of its functions, and definiteness, promptness, and energy in the performance of its

duties; and non-progressive school administration is the inevitable result.

The defects of the large board are plainly seen in the record of the Board of Education of this city. As a board "It has not come to close quarters with its work. It has trusted its committees to handle its business. It has no definite educational policy. It has not led in educational matters. It has not upheld the education law. It has not charged itself with the duty of striving to perfect the law. It has not fought for adequate appropriations for school purposes. It has not coöperated in the proper measure with the local school boards. It has not devised one system for the administration of its business, but several more or less unrelated systems. On the other hand, it has helped to pass 'the anti-merging bill,' which makes mandatory upon it and its successors the appointing of all candidates whose names are on the eligible list for three years, no matter how many better-qualified teachers are available."

Accordingly, we recommend that New York City take steps to secure a small, unpaid Board of Education (by small, we mean five, seven, or nine members), and that the board systematize its work and clearly separate its functions from those of its executive and technical staff. Such a board should not be paid, because that would cause it to attempt to exercise executive and technical functions, and for the proper discharge of these functions the members of the board have neither the time nor the requisite technical knowledge and skill.

The Board of Education is a body of laymen — representatives of the people. As such their chief duty is to appoint a competent staff, retain them in office as long as they are competent, and hold them responsible for the executive and technical functions to be performed. The board does its work chiefly by requiring and hearing reports from its staff on work done or to be done, by deliberating on and criticizing such reports, and by legislating on the work done or the measures proposed; and by rendering

a clear and an adequate account of its activities to the people. Perhaps the most important immediate duty devolving on such a board would be to study its own functions so as to enable it to distinguish clearly between those functions and the functions of its executive and technical staff. Until the board does recognize the difference between these functions, real progress in the administration of school affairs is impossible.

Such a board (and the present board) should have a general manager to unify, energize, and direct the work under the general control of the board; and since this work has for its object the education of the children—for which every detail of the school system exists—the general manager should be the City Superintendent of Schools, and his authority should be commensurate with his real responsibilities.

At present neither the charter nor the by-laws of the board define the functions of the City Superintendent as they should. The work of the general offices is in a dismembered condition. Much business is now unnecessarily delayed and uneconomically handled as to expenditure of time and energy. As general manager of the whole educational enterprise the City Superintendent should make his office an administrative clearing-house for all its activities, with a great gain in the efficiency and dispatch with which matters are attended to.

Such a board would have very few or no standing committees. The present board, like all large boards of education, transacts its business through committees. While most of the present committees are efficient as such, the members of them devoting much time and thought to their work, the transaction of business by the committees is nevertheless an important cause of the board's conspicuous inefficiency. The committee system leads to a confusion of authority and action between the board and its committees and between the committees themselves. Matters requiring decision by the committees must be referred and

re-referred; and differences of opinion on the part of committees may and do defer action indefinitely, or prevent it altogether. Whatever unity of action now obtains among the several committees is accidental, or is obtained by prolonged correspondence between them; and this means vexatious and service-impairing delays or even paralysis of the business of the system.

All this is due to a failure to distinguish between the general administrative control which the Board of Education should exercise as a whole, and the detailed executive functions that should be delegated to its administrative and supervisory staff. Whenever the board charges one of its committees (or itself) with the details of executive or technical duties, it attempts the impossible; and it loses sight of its own most important and vitally essential function, namely, that of deciding general policies and seeing that its deliberate judgments on those policies are effectively carried out by the staff. The staff, under the direction of the City Superintendent as coördinator and general manager of all the board's business, and not the committees of the board, have the time and should have the special qualifications required for carrying out the decisions reached by the board. That is what the staff is for.

Accordingly, we recommend that the Board of Education confine itself to the general direction and control of the school system; that the board recognize the necessity of becoming acquainted with its work as a whole, and of employing the informed and deliberate judgment of the whole body to conduct its business; that it turn over all executive and technical functions to its staff, under the unifying leadership of the City Superintendent as the board's general manager or chief executive; and that the work of committees, if committees are found necessary, be limited to the preparation of business for the board's consideration.

Further, to prevent needless and business-obstructing jealousy of function between the board and its general

manager, and to make his position on all official acts a matter of record, we recommend that the City Superintendent be *ex officio* a member of the Board of Education. Precedents for making the chief executive a member of governing boards of educational institutions are found in the management of American universities; and the causes which led to such action are altogether similar to those now prevailing in the administration of city school systems.

Finally, in view of the fundamental importance of the reorganization of the administrative system of the Department of Education outlined above, we recommend that the Bureau of Investigation and Appraisal carefully follow up the working of this reorganization if it be adopted, or in so far as it may be adopted, so that a foundation for progressive improvement may be laid in well-authenticated, recorded, and organized experience.

THE LOCAL SCHOOL BOARDS

The list of duties to be performed by each of the forty-six local school boards is extensive. Some of them rightfully belong to a board of laymen such as the local boards are; but others ought not to be assigned to such boards, — they belong to the executive and supervisory staff. We accordingly recommend, first of all, a revision of the duties of the local boards with a view to eliminating the confusion arising from the assignment of duties to the local boards that should be assigned to the staff, and for which the staff should be held responsible.

We find that while a few local boards take their duties seriously, and are really helpful to the schools of their districts, at present these boards, on the whole, render little real service. The principal reasons given by local board members for the feebleness of the local boards are that the local boards have responsibility, but no authority, together with the paralyzing discontent growing out of such a

situation; and the failure of the Board of Education to encourage the coöperation of the local boards.

The first of these reasons does not seem to us valid. The authority of the local boards ought not to be increased. Nothing could be worse for the school system than to have the authority for school administration dispersed throughout the forty-six districts. Their functions are the functions of lay visitors officially designated to keep the people of their several districts in touch with the schools. As such, they not only visit and report to the Board of Education on what they see in the schools; they are also, or should be, the watchful lay guardians of the educational interests of the people. In this great city the Board of Education is too remote from the local neighborhoods to keep well informed concerning the response the schools actually make to the people's needs as seen by the people. This information the local boards should get, and after thorough deliberation transmit to the board. The local board may and should keep in personal touch with the teachers, supervisory officers, and parents of their respective neighborhoods, and thus supply a valuable local watchfulness and support to all concerned. They should not themselves attempt to interfere with administration, supervision, or class-room work, but they should convey their views, as laymen, to the proper officials, or to the Board of Education, or both. Their real functions should therefore be definitely recommendatory, not administrative. For the adequate discharge of these functions no more authority is required than they already possess. Rather, as has already been pointed out, some of the duties now devolving on them should not be assigned to them; and a revision of their duties should be made with a view to relieving the local boards of such duties and assigning them to the executive and supervisory staff — where they belong.

As to the second reason given for the inefficiency of the local boards, it seems clear that unless the Board of Education actively encourages the coöperation of the local

boards, no helpful coöperation can be expected. There is no doubt that the Board of Education as a board has not concerned itself much with the local boards. So far as the records furnished us go, they show that wherever the member of the Board of Education who is a member of a local board is faithful and active as a local board member, the local board does render a real service to its district. But such instances of active membership in a local board by a member of the Board of Education are not common. If some one officer in the general offices were charged with working out the details of a plan of helpful coöperation with the local boards, including regular reports of their work, a useful scheme of mutual helpfulness would result. We accordingly recommend that the legal duties of the local school boards be revised in such a way as to make their chief duty that of visiting and inspecting the schools, and developing the interest of the community in them; and that the Board of Education do everything in its power to make them an integral part of the organized school service.

From the foregoing, it is clear that in spite of the progress the public school system of New York City has made since the consolidation, it is seriously defective. It needs thorough reorganization in respect to its administration by the Board of Education and the supervisory staff, and in respect to its general system of supervision. The Board of Education needs a clear conception of its functions, and should come to close quarters with its work. In the general system of supervision, helpful coöperation under leadership should replace bureaucratic control. The Board of Superintendents fulfils no useful function, and should be abolished. The Board of Examiners is decidedly efficient, but needs reorganization to improve and maintain its efficiency. The courses of study for elementary schools and for high schools need thoroughgoing revision, and flexibility should replace rigidity in their administration.

The compulsory-attendance service is inefficient; it emphasizes police functions rather than preventive measures, and the staff needs reorganization on a functional basis. The recognized advantages of intermediate schools in relieving congestion have not led to the further establishment of such schools, and no attempt has been made to realize the exceptional educational opportunities these schools may afford. Promotions and non-promotions are not studied so as to yield a real basis for a maximum rate of promotion. Part-time classes should be abolished. The estimated need of teachers for elementary schools and for high schools is not based on indisputable and well-organized data. The methods of discovering, segregating, and caring for mentally defective children are inadequate and unsatisfactory. The provision for industrial education is so meager as to be almost negligible. Neither industrial nor commercial education is so planned as to secure the necessary effective coöperation of industry and commerce, and coöperative and continuation schools are wholly absent. Habitual self-scrutiny and an appeal to well-conducted investigations and experiments, in order to secure the necessary data to confirm or refute educational opinion and furnish the regulative for all the activities of the school system and for its adequate financial support are lacking.

Appendices

APPENDIX A

REPORT ON THE EDUCATIONAL ASPECTS OF THE SCHOOL INQUIRY

LETTER OF TRANSMITTAL

CITY OF NEW YORK,
July 1, 1912.

Hon. JOHN PURROY MITCHEL, *Chairman*;
Hon. WILLIAM A. PRENDERGAST,
Hon. CYRUS C. MILLER,

*Committee on School Inquiry of the Board of Estimate and
Apportionment, City of New York.*

GENTLEMEN :

I submit herewith the report of my associates and myself on the educational aspects of the school inquiry, which I have directed since June 1, 1911.

We have not attempted an investigation of all the educational aspects of the school system of New York City; but the report is comprehensive and our recommendations are far-reaching. If carried out, they involve, in important respects, a reorganization of the public school system as a whole, and point the way to improvements in the details of organization, administration, supervision, courses of study, and teaching.

Though our work concerns specifically the educational aspects of the school system, we studied, at your request, certain budget questions, and two of them — the methods of estimating the need of teachers for elementary schools and for high schools — have been studied in detail. The report consists of two parts, for convenience. Part I contains, besides an account of the conditions under which our inquiry was carried on, "The Report as a Whole," an interpretation of the entire report including summaries, principal findings and the recommendations based on them. Part II consists of the reports of the specialists on their several fields of inquiry. Without these reports the generalizations of Part

I are, for the most part, without the foundation on which they rest. Moreover, these details will be demanded by the professional reader; and some of them, we believe, illustrate methods of studying the problems dealt with that are either new or have not been employed in the study of similar problems heretofore.

PAUL H. HANUS,

In Charge of Educational Aspects of the School Inquiry.

APPENDIX B¹

I. OUTLINE OF THE ORGANIZATION AND PLAN OF ADMINISTRATION AND SUPERVISION OF THE SCHOOL SYSTEM OF THE CITY.²

BOARD OF EDUCATION

MEMBERS

1. Appointed by the Mayor for a term of five years.
2. From boroughs: Manhattan, 22; The Bronx, 4; Brooklyn, 14; Queens, 4; Richmond, 2; total, 46 members.
3. Each member assigned by the President to membership of one of the forty-six Local School Boards.

POWERS AND DUTIES

1. Has the powers of a corporation.
2. Represents school system before Board of Estimate.
3. Uses, controls, and disposes of school property.
4. Enacts by-laws.
5. Establishes and conducts elementary, high, evening, vacation schools, etc.
6. Provides training schools for teachers.
7. Maintains nautical school.
8. Maintains free lectures.
9. Appoints janitors.
10. Adopts or modifies courses of study upon recommendation of Board of Superintendents.
11. Approves textbooks upon recommendation of Board of Superintendents.

¹ In the report as submitted to the committee the subject-matter of this appendix appears as an integral part of the "Introduction" to Part I.

² Taken literally from or based on the Thirteenth Annual Report (1910-1911) of the Superintendent of Schools to the Board of Education of The City of New York.

12. Designates kinds and grades of licenses upon recommendation of Board of Superintendents.

13. Appoints principals and teachers from eligible lists upon nomination by Board of Superintendents.

14. Has care and management of retirement fund and establishes rules and regulations for its administration.

15. Retires teachers.

16. Tries charges against principals or teachers; approves or modifies decisions reached by local school boards upon trials of teachers.

17. Administers general school fund (3 mills on assessed valuation of city property for teachers' salaries, and additional funds granted by financial authorities of the city), and special school fund (for other purposes).

18. Acts as board of trustees of Normal College.

BOARD OF SUPERINTENDENTS

City Superintendent of Schools (Chairman, *ex officio*), and eight Associate City Superintendents. For administrative purposes the City Superintendent has divided the city into seven large divisions, and assigned an Associate City Superintendent to each division to supervise the work of the District Superintendents, to receive and digest their reports, and to represent the interests of his division in the Board of Superintendents.

The Committees of the Board of Superintendents for the school year 1910-1911 were as follows:

Committee on Nomination, Transfer, and Assignment.

Committee on School Management.

Committee on Course of Study.

Committee on Textbooks, Libraries, and Supplies.

Committee on High Schools.

Committee on Training Schools.

Committee on Evening Schools.

Committee on Vacation Schools, Playgrounds, and Recreation Centers.

Committee on Compulsory Education.

Committee on Records, Forms, and Reports.

Committee on Vocational Schools, and Classes for Defectives.

CITY SUPERINTENDENT OF SCHOOLS

1. Appointed by the Board of Education for six years.

2. Powers and duties:

(a) Has seat in Board of Education, but no vote.

(b) Reports to Board of Education on the condition and needs of the schools.

- (c) Visits and inspects schools.
- (d) Advises and encourages teachers, pupils, and officers.
- (e) Prescribes blanks, forms, registers, etc.
- (f) Submits annual report.
- (g) Is chairman, *ex officio*, of Board of Superintendents.
- (h) Holds conferences with superintendents and principals.
- (i) Assigns duties of Associate and District Superintendents, subject to by-laws of Board of Education.
- (j) Assigns twenty-three District Superintendents each to two districts for one year, and reassigns at pleasure; assigns remaining three District Superintendents to special duties, one to visit high schools, one to have charge of evening schools, and one to have charge of the vacation schools, playgrounds, and recreation centers.
- (k) Is chairman, *ex officio*, of Board of Examiners.
- (l) Nominates members of Board of Examiners.
- (m) Enforces compulsory education law; nominates and supervises attendance officers.
- (n) Is a member of the Board of Retirement.
- (o) Appoints and dismisses members of the clerical force in his office, subject to confirmation by the Board of Education.
- (p) Is a member of the Permanent Census Board.

BOARD OF SUPERINTENDENTS

1. Members: The City Superintendent and eight Associate City Superintendents.

(a) Appointed by the Board of Education for a term of six years.

2. Powers and duties:

(a) Recommends to the Board of Education the establishment of schools, kindergartens, and special features in schools.

(b) Increases or decreases number of classes in schools.

(c) Recommends kinds and grades of licenses, and qualifications therefor.

(d) Nominates from eligible lists, for appointment, transfer, or promotion, all members of teaching and supervising staff.

(e) Assigns special teachers to districts.

(f) Keeps records of teachers, open to superintendents, principals, and teachers (their own records only).

(g) Determines merit and fitness of principals and teachers for increase of salary.

(h) Excuses absences of teachers with pay, and grants leave of absence to teachers without pay.

(i) Makes rules for promotion and graduation of pupils.

(j) Recommends courses of study.

- (k) Issues syllabuses in connection with course of study.
- (l) Recommends textbooks and other supplies.

DISTRICT SUPERINTENDENTS

1. Appointment: Twenty-six, appointed by Board of Education on nomination by Board of Superintendents for term of six years. Twenty-three of the District Superintendents are assigned to school districts, two districts to each superintendent; one is assigned to vacation schools, playgrounds, and evening recreation centers; one to high schools, and one to evening schools.

2. Powers and duties:

(a) Visit and examine schools under direction of City Superintendent.

(b) Report to City Superintendent on the condition and needs of the schools.

(c) Advise, assist, and encourage pupils, teachers, and principals.

(d) Conduct conferences with principals and teachers.

(e) Rate principals and teachers at least once a year.

(f) Investigate all complaints within their districts.

(g) Report gross misconduct of principals and teachers, and suspend for the same.

(h) Assign teachers of special branches to schools.

(i) Approve, disapprove, or modify all requisitions of principals for supplies.

(j) Attend meetings of local school boards.

(k) Are to be in their offices on specified days.

(l) Keep records of the district.

(m) Make recommendations to City Superintendent as to proper accommodation for all children of school age.

(n) Enforce compulsory education law, under the direction of the City Superintendent of Schools.

BOARD OF EXAMINERS

1. Members: City Superintendent, together with four persons nominated by him and appointed by the Board of Education, for a term of six years.

2. Powers and duties:

(a) Holds such examinations as City Superintendent may prescribe.

(b) Grants licenses.

(c) Prepares eligible lists.

3. Physicians: One man and one woman, to examine applicants for licenses and to certify as to physical condition.

BOARD OF RETIREMENT

1. Members: The President of the Board of Education, the Chairman of the Committee on Elementary Schools, the Chairman of the Committee on High Schools, the City Superintendent of Schools, all *ex officio*, and three members of the teaching force elected for three years by the principals and teachers.

2. Powers and duties: Recommends members of the teaching and supervisory force for retirement.

B. MAGNITUDE AND VARIETY OF THE ACTIVITIES CONTROLLED BY THE BOARD OF EDUCATION— GENERAL STATISTICS

NUMBER AND CLASSIFICATION OF SCHOOLS

At the close of the school year 1910-1911 the number of schools in operation in each of the boroughs was as follows:

DAY SCHOOLS

Borough	Train- ing Schools	High Schools and H. S. Depts.	Elemen- tary Schools	Truant Schools	Voca- tional Schools	School for the Deaf	Nauti- cal School	Total
Manhattan	1	5	167	1	2	1	1	178
The Bronx		1	44			.	.	45
Brooklyn	1	7	166	1	.	.	.	175
Queens	1	6	86	1	.	.	.	94
Richmond		1	34			.		35
Entire City	3	20	497	3	2	1	1	527

EVENING SCHOOLS

Schools	Manhattan	Bronx	Brooklyn	Queens	Richmond	Total
Evening High Schools	6	1	7	1	1	16
Evening Trade Schools	1	.	1	.	.	2
Evening Elem. Schools	41	7	31	16	6	101

VACATION SCHOOLS, PLAYGROUNDS, RECREATION CENTERS

Schools	Manhattan	Bronx	Brooklyn	Queens	Richmond	Total
Vacation Schools . . .	14	2	13	3	.	32
Evening Recreation Centers . .	25	3	11	2	2	43
Vacation Playgrounds :						
Indoor	55	7	39	6	4	111
Mothers' and Babies', A. M.	42	2	10	.		54
Mothers' and Babies', P. M.	32	.	23	.	.	55
Open Air	6	1	1	.	1	9
Kindergarten Centers	5		2	.		7
Evening Playgrounds .	10		2	.	.	12

In addition there are 47 corporate schools, industrial schools, and orphan asylums that receive a share of the general school fund.

GENERAL STATISTICS

The following table presents the net enrollment, average register, and the average attendance of pupils in all the schools of the city during the year 1910-1911, as compared with the corresponding figures for 1909-1910, the average register in the different classes of schools, and other general facts of interest:

ALL SCHOOLS

	1909-10	1910-11	Increase	Per Cent.
Net enrollment	747,223	770,243	23,020	3.08
Average monthly register . .	659,495	677,962	18,467	2.80
Average daily attendance . .	586,673	603,455	16,782	2.86
Per cent. of average daily attendance on average register . . .	89	89	.....	....

TRAINING SCHOOLS FOR TEACHERS

(THEORY DEP'TS.)

	1909-10	1910-11	Increase	Per Cent.
Net enrollment	2,694	2,682	12 ¹	0.45 ¹
Average monthly register . . .	2,169	2,111	58 ¹	2.67 ¹
Average daily attendance . .	2,134	2,051	83 ¹	3.89 ¹
Per cent. of average daily attendance on average register	98	97	1 ¹	1.02 ¹
Number of principals	3	3	..	...
Number of teachers	96	100	4	4.17
Average number of pupils to a teacher based on the average register	23	21	2 ¹	8.70 ¹

NOTE. — The term net enrollment means the number of different pupils taught during the school year.

A graduate from an Elementary School who enters a High School and a graduate from a High School who enters a Training School for Teachers is counted in both schools, however.

The term average monthly register means the average number of pupils on register each month during the school year, and is obtained by adding one-half of the number of pupils on register on the first day

¹ Decrease.

and on the last day of each month, and dividing the sum of these by the number of months the school has been open.

The average daily attendance means the average number of pupils in attendance on each day of the school year, and is obtained by dividing the aggregate days of attendance by the actual number of school days.

HIGH SCHOOLS

	1909-10	1910-11	Increase	Per Cent.
Net enrollment	50,902	54,286	3,384	6.65
Average monthly register	35,107	38,202	3,095	8.80
Average daily attendance	30,252	32,492	2,240	7.40
Per cent. of average daily attendance on average monthly register	86	85	1 ¹	1.16 ¹
Number of principals	17	19	2	11.76
Number of teachers	1,283	1,429	146	11.38
Average number of pupils to a teacher based on the average register	27	27	....	....

VOCATIONAL SCHOOLS

	1909-10	1910-11	Increase	Per Cent.
Net enrollment	381	1,414	1,033	271.13
Average monthly register	171	647	476	278.36
Average daily attendance	109	521	412	377.99
Per cent. of average daily attendance on average monthly register	64	81	17	26.56
Number of principals	1	1	...	....
Number of teachers	4	16	12	300.00
Average number of pupils to a teacher based on the average register	43	40	3 ¹	6.98 ¹

¹ Decrease.

ELEMENTARY SCHOOLS (EXCLUDING KINDERGARTENS)

	1909-10	1910-11	Increase	Per Cent.
Net enrollment	650,283	666,558	16,275	2.50
Average monthly register	597,544	611,254	13,710	2.29
Average daily attendance	534,222	547,295	13,073	2.45
Per cent. of average daily attendance on average monthly register	89	90	1	1.12
Number of principals and heads of departments	853	858	5	.59
Number of teachers	14,095	14,334	239	1.70
Average number of pupils to a class based on the average register	42	42	....	....

SCHOOL FOR THE DEAF

	1909-10	1910-11	Increase	Per Cent.
Net enrollment	169	197	28	16.57
Average monthly register	154	187	33	21.43
Average daily attendance	131	158	27	20.61
Per cent. of average daily attendance on average monthly register	85	84	1 ¹	1.18 ¹
Number of principals	1	1	..	.....
Number of teachers	17	21	4	23.53
Average number of pupils to a teacher based on the average register	9	9	..	.....

Above are included in the elementary school statements.

¹ Decrease.

KINDERGARTEN CLASSES

	1909-10	1910-11	Increase	Per Cent.
Net enrollment	42,963	45,303	2,340	5.45
Average monthly register	24,504	25,748	1,244	5.08
Average daily attendance	19,956	21,096	1,140	5.71
Per cent. of average daily attendance on average monthly register	81	82	1	1.23
Number of teachers	786	823	37	4.71
Average number of pupils to a class based on the average register . .	30	30	....	....

SUPERINTENDENTS, DIRECTORS, ETC.

	1909-10	1910-11	Increase	Per Cent.
Number of superintendents	35	35	..	.....
Number of directors of special branches	10	9	1 ¹	10.00 ¹
Number of assistant directors of special branches	3	4	1	33.33
Number of inspectors and assistant inspectors of special branches . .	8	8	..	.....
Number of teachers of special branches	464	479	15	3.23

EVENING HIGH SCHOOLS

	1909-10	1910-11	Increase	Per Cent.
Number of schools	15	18	3	20.00
Number of pupils enrolled	29,287	34,213	4,926	16.82
Average nightly register	12,673	14,554	1,881	14.84
Average nightly attendance	9,343	10,829	1,486	15.90
Per cent. of average attendance on average register	74	75	1	1.35
Number of class teachers	496	516	20	4.03

¹ Decrease.

EVENING ELEMENTARY SCHOOLS

	1909-10	1910-11	Increase	Per Cent.
Number of schools	96	101	5	5.21
Number of pupils enrolled . . .	80,369	93,519	13,150	16.36
Average nightly register	40,769	45,623	4,854	11.91
Average nightly attendance . .	27,725	30,378	2,653	9.57
Per cent. of average attendance on average register	68	67	1 ¹	1.47 ¹
Number of class teachers . .	1,422	1,360	62 ¹	4.36 ¹

VACATION SCHOOLS

	1910	1911	Increase	Per Cent.
Number of schools	30	32	2	6.67
Aggregate attendance	555,098	611,043	55,945	10.08
Average daily register	21,434	23,302	1,868	8.72
Average daily attendance	18,504	20,367	1,863	10.07
Per cent. of average daily attend- ance on average daily register .	86	87	1	1.16
Number of class teachers	501	574	73	14.57

VACATION PLAYGROUNDS

	1910	1911	Increase	Per Cent.
Number of playgrounds	250	248	2 ¹	.80 ¹
Aggregate attendance	5,609,081	5,955,460	346,379	6.18
Average daily attendance	119,335	125,528	6,193	5.19
Number of teachers	706	838	132	18.70

¹ Decrease.

EVENING RECREATION CENTERS

	1909-10	1910-11	Increase	Per Cent.
Number of recreation centers	36	43	7	19.44
Aggregate attendance	2,165,457	2,088,415	77,042 ¹	3.56 ¹
Average nightly attendance	12,985	16,805	3,820	29.42
Number of teachers	161	213	52	32.30

PUBLIC EVENING LECTURES

	1909-10	1910-11	Increase	Per Cent.
Number of centers	166	177	11	6.63
Number of lectures	5,196	5,411	215	4.14
Aggregate attendance	959,982	955,074	4,908 ¹	.51 ¹
Average nightly attendance	185	176	9 ¹	4.86 ¹

LIBRARIES

ELEMENTARY SCHOOLS

	1909-10	1910-11	Increase	Per Cent.
Volumes in class libraries	462,994	472,482	9,488	2.05
Volumes circulated	7,494,791	7,923,054	428,263	5.71
Volumes in reference libraries	148,448	145,832	2,616 ¹	1.76 ¹
Volumes circulated	210,685	251,971	41,286	19.60

HIGH SCHOOLS

	1909-10	1910-11	Increase	Per Cent.
Volumes in libraries	75,138	79,545	4,407	5.8
Volumes issued for home use	80,504	97,516	17,012	21.13

¹ Decrease.

THE TOTAL SUPERVISING AND TEACHING FORCE

The following table shows the total supervising and teaching force for all the schools as it was distributed between the sexes on July 31, 1911:

	Men	Women	Total
Superintendents	32	3	35
Directors of special branches	5	4	9
Assistant directors of special branches	2	2	4
Inspectors and assistant inspectors	3	5	8
High school principals	19	....	19
High school teachers	707	768	1,475
Assistants to principals not teaching, in elementary schools	26	405	431
Training school principals	2	1	3
Training school teachers	22	84	106
Vocational school principal	1	....	1
Vocational school teachers	8	8	16
Elementary school principals	216	211	427
Elementary school teachers	1,074	13,285	14,359
Special teachers of special branches	136	343	479
Kindergartners . . . . .	....	823	823
	2,253	15,942	18,195

These figures do not include teachers in evening schools, or in recreation centers, or in vacation schools and playgrounds.

DIRECTORS AND ASSISTANT DIRECTORS OF SPECIAL BRANCHES

The directors of special branches are assigned as follows:

Music. — 1 Director; 1 Assistant Director.

Drawing. — 1 Director (elementary schools); 1 Director (high schools).

Shopwork. — 1 Director (elementary schools).

Physical Training. — 1 Director; 3 Assistant Directors.

Sewing. — 1 Director for Manhattan, The Bronx, and Richmond.

1 Director for Brooklyn and Queens.

Cooking. — 1 Director.

Kindergarten. — 1 Director.

TEACHERS OF SPECIAL BRANCHES

The teachers of special branches are employed to aid the regular class teachers, except in the matters of foreign languages, cooking, and shopwork; in these branches they teach the pupils directly.

In Manhattan there is one supervising officer in the elementary schools for every 18.1 teachers; in The Bronx there is one supervising officer for every 18.8 teachers; in Brooklyn there is one supervising officer for every 17.4 teachers; in Queens there is one supervising officer for every 16.3 teachers; and in Richmond there is one supervising officer for every 16.7 teachers.

DISTRIBUTION OF PUPILS

The following table shows the proportion of pupils in the schools, those in high schools, those in elementary schools, those in training schools, those in vocational schools, and those in kindergartens, in each of the boroughs:

The ages within which the law requires all children of sound body and mind to be in school are seven and fourteen. Seventy-three per cent of all the pupils in the schools are within these ages.

AVERAGE MONTHLY REGISTER, SCHOOL YEAR, 1910-1911

Borough	High Schools		Elementary Schools		Training Schools		Vocational Schools		Kindergartens	
	Average Register	Per Cent. of Whole Number	Average Register	Per Cent. of Whole Number	Average Register	Per Cent. of Whole Number	Average Register	Per Cent. of Whole Number	Average Register	Per Cent. of Whole Number
Manhattan	13,206	4.7	259,324	91.6	829	.3	647	.2	9,209	3.2
The Bronx	3,247	4.5	66,739	92.5	...	..	...	..	2,181	3.0
Brooklyn	16,724	6.6	226,257	88.8	1,054	.4	...	..	10,599	4.2
Queens	4,213	7.8	46,697	86.4	228	.4	...	..	2,895	5.4
Richmond	812	5.8	12,237	88.0	...	..	...	..	864	6.2
	38,202	5.6	611,254	90.2	2,111	.3	647	.1	25,748	3.8

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